"That Just Ain't Natural!"

Those of us who live here in America are just obsessed with the word "natural." If it's natural, it's good; unnatural; BAD.

If you're trying to sell a nutritional supplement or other type of remedy, it's crucial to use the word "natural." If you don't no one will buy it. Forget about the fact that substances such as arsenic and tobacco are completely natural. Even testosterone, the most evil hormone of all, is completely natural! Just repeat after me: "natural is good, unnatural is BAD."

Well you know what? I have a different take on it. You say you're a "natural" bodybuilder? Great! But I have to wonder, how "natural" is it to wake up and do 20 minutes of cardio on an empty stomach? How "natural" is it to take 25 grams of pure creatine a day to saturate your tissues beyond what would otherwise be possible? How "natural" is it to drive to a commercial gym and perform all manner of exercises to tear down your muscle tissue? Then, how "natural" is it to rush home to get exactly 30 grams of micron-filtered whey protein and maldodextrin to replenish your glycogen stores?

Those other guys? They use drugs— it just ain't natural!

Forget about training for a minute— it's not even natural to treat others with kindness! As I sit here writing this, one of my cats walked over and took a swipe at her litter-mate for no apparent reason.

In the natural World, you got plenty of exercise hunting for food (and also trying to avoid becoming food). You didn't count grams of fat— you just ate whatever you could get.

Enter technology. Today, food is easy to get and we barely need move a finger to get through the day. So it becomes necessary to exercise (a very unnatural concept) and watch your nutritional intake.

So, the title of this newsletter reflects the irony of the current fitness scene. Each month, we'll provide you with new information and strategies on how you can become the best unnatural athlete possible. Some of the themes we'll be presenting include:

• Developing an unnatural mindset— everything from becoming mentally tough, open-minded, goal-directed, and laser-focused. You might even develop an autotellic approach to training: doing things for the love of doing them, rather than only for the secondary gain. The "naturals" among us can't wait to get finished— the "unnaturals" can't wait to get started.

• Developing an unnatural body— certainly less fat and more muscle, but more importantly, the ability to perform well above and beyond those who pursue more natural activities, such as sitting on the couch in front of the television.

• Developing an unnatural perspective— for example, rather than walking into the gym and "winging it," you'll actually have a plan. Rather than judging the effectiveness of a workout

by how much pain it causes, the unnatural athlete judges it by how well it improves his or her fitness levels. To the "natural" athlete, recuperation means resting between workouts. However, "unnatural" athletes force the issue, achieving faster recoveries than what Mother Nature had in mind.

Habits

"Habits are like cobwebs at first, cables at last" — Proverb

With the New Year upon us, I thought I'd use this installment of The Unnatural Athlete to explore the relationship between our habits and the outcomes we experience in training and in life.

The concept of "New Year's resolutions" has always been interesting to me, primarily because so few people manage to keep them. Since the conventional route rarely works, let's explore a less conventional approach...

What Are Habits?

Habits are consistent patterns that reveal our character and determine our effectiveness in life. Steven Covey describes habits as "the intersection of knowledge, skill, and desire." In Covey's representation, knowledge represents the paradigm we apply to a situation, or the "how to do." Skill is the "how to do," and desire is the motivation or the "want to do."

Benefits & Costs

Anthony Robbins has suggested that we do not change "bad" habits until the negative consequences of those habits begin to outweigh the perceived benefits. For example, you might find yourself in the habit of eating a pint of ice cream every night before going to bed. You enjoy the experience of eating that ice cream, and, at least for the short term, that enjoyment greatly outweighs the negative outcomes of your habit, since it takes time for those extra calories to cause weight gain.

After several weeks however, it becomes evident that your ice cream habit has caused you to gain 15 pounds. At this point, the negative outcome of the habit is quite tangible, and because you have been eating that ice cream every day for weeks, you don't get the same enjoyment from it that you used to. Because the negatives are now outweighing the positives, you're now much more likely to change your ice cream habit.

Changing Unproductive Habits

Knowledge

In some cases, we are unaware of the negative consequences of our habits. For example, excessive intake of processed carbohydrates can promote inflammatory responses in the joints. You may assume that your painful joints are simply part of life, or the outcome of old athletic injuries. It isn't until you reduce your intake of processed carbs that you realize the negative consequences of your former habit. On a similar note, we often do not realize the benefits of our good habits until we discontinue them for a period of time.

We commonly assume that it takes discipline to change bad habits. It's interesting to note that the word "discipline" evolved from the root word "disciple" which means "one who learns." And in fact, when you encounter a highly disciplined person, you're not looking at someone who gets his/her kicks from self-denial, but instead, someone who has learned that the negative outcomes of certain behaviors is not worth the benefits associated with them. It really comes down to self-awareness.

Skill

The skills required to change undesirable habits can be learned by anyone and are widely available to those who seek it. The primary skill involved is the simply decision to take action. I recently saw a great sketch on a television show, where Bob Newhart played a psychologist who billed himself as being able to cure anyone's problems in 5 minutes. A female patient comes in whereupon he asks "How may I help you?" She proceeds to explain that she has a terrible eating disorder where she eats copious amounts of food, only to purge the meal shortly thereafter. "Is that all?" Newhart asks? "No" she replies, and begins to describe her terrible drug and alcohol problems. "Anything else?" Newhart inquires. "Yes," the patient continued, explaining that she also has Obsessive-compulsive tendencies, and can't manage to leave her house without making sure that the stove if off dozens of times.

Finally, the patient had fully detailed her numerous psychological problems. Newhart reflects for a moment, and then simply says "OK, here's what you need to do: STOP IT!"

"Huh?"

"STOP IT!"

"But..."

"Just STOP IT!"

"I also pull my eyelashes out"

"Stop that too"

Substitution

Unfortunately, simply stopping your bad habits, in and of itself, is an insufficient strategy. A much more effective plan is to substitute a new, more productive habit in place of the one you've decided to end. For example:

Sitting in front of the television at night is the enemy of good eating habits. You're being bombarded with tremendously effective food commercials, and you're in close proximity to the fridge. If you find that you're most vulnerable to making poor eating choices at night, this could be the reason why. If you can terminate the night-time TV habit and substitute it with (for example), a bike ride, a lot of good things start to happen:

1) You're away from the pervasive food commercials and the access to the fridge

2) You're burning calories while you exercise

3) Exercise tends to blunt your appetite

4) When you exercise, you're more likely to eat right, as a way of further leveraging the good effects of the exercise

Motivation

The motivation required to change bad habits comes from the realization that the benefits you experience from your habits are not worth the negative outcomes of those habits.

The following is an exercise to help you become more aware of the benefit/cost ratio of your habits. Spend a few minutes on this exercise right now:

My 3 most effective/empowering training/nutritional habits are:

1)

2)

3)

My 3 most destructive training/nutritional habits are:

1)

2)

3)

Now take a moment to identify the benefits or rewards you experience from each habit, and also the negative outcomes (if any) of each habit.

Example: Under the effective habit list, you may have listed that you eat 5 times a day (as opposed to 2 or 3). The benefits of this habit are that your energy levels are more stable, your cravings for sugary foods has diminished, you can eat more without gaining weight, and that your body composition has improved. The negative aspects of this habit are that it is occasionally inconvenient to eat so often, and that you need to give more thought to meal preparation than you used to. Are the benefits worth the cost?

Momentum

The nice thing about establishing new habits is that most of the hard work takes place in the first 3-4 weeks...after that initial period of time, the amount of effort required to sustain the new habit diminishes considerably.

The bottom line is that whatever strategy you choose to change undesirable habits, at some point, you simply need to take action; you need to interrupt the pattern. You might find it helpful to recall a positive experience from your past as you managed to stop a bad habit. How did you do it? Was it worth the effort? Was it really as hard as you had anticipated?

Stress: The Good, Bad, & the Ugly

Contrary to the popular understanding of the word, stress is not a purely negative condition. In fact, stress is absolutely necessary for all living entities, including your body. Striking evidence of this fact can be seen in the weak, atrophied legs of astronauts upon returning to Earth after an extended stay in space. In fact, the sarcopenia (muscle wasting) caused by long outings in zero gravity environments is perhaps the single most vexing impediment to long distance space travel.

Interesting then, how so many of us seem to seek out the closest possible thing to a zero gravity environment throughout their lives (either consciously or unconsciously) through chronic avoidance of physical activity!

Here then, are a few thoughts on how to make stress work for you, not against you:

• In the psychological use of the word "stress," people who find themselves in situations where they have little or no control over the outcome suffer the most distress. For example, even if you work long hours, if you feel that you have control, you're likely to be able to successfully handle the stress at your job. Conversely, no matter how much or how little time you spend at work, if you can't influence the outcome, you'll suffer accordingly. Physically, it's much the same: if the forces imposed by a physical activity exceed your body's ability to control them, you'll end up injured.

• Even though a certain amount of stress is necessary, excessive and/or chronic levels of stress (called "distress") is damaging to living systems. The "good" kind of stress is called "eustress."

• Training isn't the only load you're under: Typically, when estimating their need for recuperation, athletes and serious exercisers consider only recent workouts. However, ALL recent stressors, ranging from immune challenges, as well as environmental, social, psychological, and emotional factors, should also be considered. An athlete planning a heavy squat session for example, should consider not only recent workouts, but also psycho, social, emotional, cognitive, and other factors.

• Specificity & the anaerobic World: The law of specificity suggests that all forms of training are more effective if they approximate the stresses inherent in the sport, activity, or event that one is training for. For example, if one wishes to increase flexibility for the purposes of throwing higher kicks in martial arts events, one might favor dynamic as opposed to static forms of stretching. If you wish to improve your single repetition maximum in a particular weight training exercise, training should emphasize heavier, low repetition sets as opposed to lighter weights performed for multiple reps.

As a general observation, for the overwhelming majority of us, life is an anaerobic experience. Excepting those times when you are performing exercise in your "target heart rate" for an extended period of time, the rest of your day is anaerobic. It's mostly rest, punctuated with frequent (or for some of us, not so frequent) bursts of higher intensity

activity. Training suggestions for this activity pattern includes resistance training (to help maintain structural integrity, elevate metabolism, and keep bones strong) and flexibility training (to help maintain healthy posture appropriate length of muscles which tend to shorten during long periods of sitting, such as the hamstrings and hip flexors). Note: what we are saying here is that it is equally important to train for inactivity as it is for activity! Fitness is defined by the International Sports Sciences Association as the ability to withstand the exigencies of everyday life, with a little left to spare in case of emergency. Inactivity is itself a form of stress, which, if not trained for, will harm your body over time!

Some Practical Suggestions:

• Despite the prevalence of the "no pain, no gain" philosophy so often seen among both serious and casual exercisers, remember that, in order to experience a training effect, your body needs only to experience a stress that is slightly above and beyond what it normally encounters. Therefore, whether it's weight on the bar, miles covered during a run, or hours spent on your bike, use the "20/5" rule: using a standard intensity, wait until you can increase the volume by 20% before increasing the intensity by 5% and starting over.

• Often, what might seem like a small increase is really quite a significant one. For example, during last week's workout, you lift 185 pounds for 5 sets of 5 repetitions. Today you plan a "small" increase by lifting the same weight for 5 sets of 6 repetitions— only one extra rep per set. However, the total volume of the first workout was 4625 pounds, whereas your planned workout totals 5550 pounds— more than a 20% increase! Note: the progression strategy just discussed is not necessarily inappropriate; my point is simply that it is more aggressive than it first appears.

• In resistance training, load is not the only factor in determining how much tension your body undergoes— speed is the other. A weight may be safe when lifted slowly, but unsafe when lifted quickly. Similarly, another weight may be too insignificant to produce a training effect when lifted slowly, but optimally challenging when lifted faster. Beginners should lift and lower weights using a "deliberate" speed at first, and then, as their fitness levels improve, gradually work toward more "accelerative" lifting speeds (e.g., lowering the weight over a 2-3 count, and then briskly accelerating the weight back to the start position, taking care to "back off" toward the end of the stroke to avoid unnecessary joint stress at the lockout position).

• For cyclic activities such as walking, running, cycling, swimming, etc., stay safe by using this rule of thumb: the duration of the return trip should not exceed the duration of the "out" trip. If it does, it indicates that you are fatiguing too rapidly: a sure sign of excessive loading.

• Respect the "law of reversibility:" If you haven't trained for a while due to injury, illness, work schedule, or any other reason, do NOT assume you can start back at the fitness level you had immediately before discontinuing your training! You are in essence a beginner again, at least temporarily, so err on the side of caution as you build back up to your previous fitness levels.

• Your constitutional level of recuperation can be assessed by monitoring your waking pulse each day. After 7-10 days, calculate your average waking pulse. Then, on subsequent days, avoid hard workouts when your waking pulse is 10 or more beats above average. More directly, if you can train at a high level of quality, you're recovered. If you can't you're not.

The VPIC Training Model

Typically, exercise and athletic training programs fail because people fail to define expectations, determine appropriate time-frames, and to evaluate the results of past programs. The VPIC model is a tool that can be used to rectify these mistakes. The acronym VPIC stands for a four-step process: visualize, plan, implement, and close.

Visualize

People engage in training programs for a variety of reasons, but regardless of the objective, many such programs fail for a very simple reason: the training program did not meet expectations.

(Note: I purposely use the word "training" rather than "exercise" or "workout" to suggest a specific objective which is to be achieved within a finite time period. The words "exercise" and "working out" tend to convey a feeling of an ongoing process with no visible end in mind.)

This being the case, we can then say that the formula for a successful training program is:

"success = met expectations"

Therefore, in order for a training program to fulfill the above definition, one must in fact have clear, quantifiable expectations, BEFORE the program is conceived and implemented! If you embark upon a training program without having a crystal-clear vision of what you're trying to accomplish, you will fail. I challenge you to answer the following question with complete honesty:

"Am I training with a well-defined outcome and completion date?"

This could be the most important question you ever asked yourself, and if you answer it honestly, I believe you'll make a quantum leap in terms of the results you'll experience in your future training efforts.

A powerful vision generates enthusiasm and commitment. If you've been "going through the motions," doing your workouts but getting disappointing results, perhaps it's time to DEFINE what results mean to you.

Right Now

If you were to plan a six-week training program, starting one week from today, what changes would you like to see (either in your physique or your performance capacity) at the end of that six-week period? As you consider your answer, ensure that your response is SMART: Specific, measurable, attainable, relevant, and time-referenced. Below are a few examples of SMART vision statements:

“In six weeks, I will bring my body fat percentage from 16 to 14.”

“By April 21, 2002, I will increase my chin-up performance from 7 reps to 12 reps using my bodyweight plus 25 pounds of added resistance.”

“At the end of my six-week training program, I will make a 3% improvement in my 5K run performance.”

Plan

“For every moment spent planning, you can save three or four moments of execution time.” — Crawford Greenwaldt

Once you’ve created a SMART vision statement for your training, the second step is to plan a program that will produce these results. In other words, now that you’ve determined what you want, it’s time to determine how to get there.

As you plan your next training program, consider the following two factors:

Constraints: All projects require resources, and training programs are no exception. Determine what you’ll need in terms of time, energy, equipment, knowledge, and motivation in order to achieve a successful outcome.

Hot Spots: What are the possible obstacles that may stand in the way of success? Do you have a recurring injury that always seems to thwart your progress? Do you have a tendency to start a new program with lots of enthusiasm, only to lose your steam a few weeks into it?

The best way to identify potential hot spots is to review your previous training programs in an effort to determine why they didn’t produce the expected results. Look for patterns. Few people bother to maintain a training journal. Even fewer take the time to evaluate them in an effort to see what has worked and what hasn’t worked. Your training journal can be your best teacher— IF you use it properly.

Implement

Once your training plan has been completed, it’s time to execute the program. All training sessions should be scheduled and entered into your day planner, organizer, PDA, or whatever system you use to stay organized.

Think of your training sessions as appointments with yourself. If you have a training partner (highly recommended), then they become appointments with your partner. Schedule not only the start time for each workout, but also the end. In other words, not “I’m going to workout tomorrow” but “I have a workout scheduled from 3 to 4 pm tomorrow afternoon.”

As you schedule your sessions, have a back-up plan to deal with problems, such as

• Unanticipated interruptions

• Illness

• Pain

• Traffic (both in the way to, and inside the gym)

Close

Once your training program has reached a conclusion, you have two choices:

1) Start a new program, or…

2) Review your last program, determine what went right and what went wrong, how it could have been improved, and THEN plan & implement a new program.

Unfortunately, in nearly all cases, people tend to choose the first option. The problem with that option is that you never learn anything. It would be analogous to putting your hand in a fire, getting burned, and then doing it again! If you don't learn from history, you'll be destined to repeat it. Every time you complete a training program, ask yourself "What did I learn from this cycle?" Then ask "What changes should I make to the next cycle to avoid making the same mistakes?" In this way, each training cycle will serve as a teacher, ensuring that each successive cycle is more productive than the one that preceded it.

Making A Grocery List And Checking It Twice

By Phil LeClair, www.smartfuel.com

The analogy has been around in the sports nutrition world forever: "To perform properly, you have to make sure that you put the right fuel in your tank." The tank, of course, refers to the body. As corny as this line may be, it is absolutely right. Few athletes can get away with eating lousy and performing at their peak levels. For those that can, they have been given a genetic gift, making the rest of us envious. I have witnessed a few such beings in my time and it is mind-boggling how they can eat junk food all day including three hot dogs before a game and still score a hat trick. Better yet, chowing down six pieces of greasy pizza and fifteen minutes later bench-pressing 300 pounds! Any attempts to match such feats would leave me and most others in an uncomfortable and potentially messy situation.

For us mortals, we need to choose our "fuel" wisely. The best way to assure proper eating is to stock kitchen cabinets and refrigerators with a variety of healthy foods. Unlike expensive sports supplements that rarely work, common foods are relatively inexpensive and provide a wide array of nutrients.

Fruits and especially vegetables are definitely the most neglected of all food groups. They are so much more than the overrated bowl of pasta or rice. In addition to containing carbohydrates, they also contain fiber, vitamins, minerals, water and phytochemicals. These powerful substances provide a number of benefits to our bodies such as maintaining a healthy immune system to protect us from illness and disease. Aside from carbohydrates, some fiber and a few vitamins and minerals, the nutrient value of fruits and vegetables tower over pasta and rice. Because fruits and vegetables differ in their nutrient content it is important to eat a variety of them. For example, if bananas are the only fruit and corn the only vegetable in your diet, you only benefit from their specific nutrients. However, if you eat bananas, peaches, pears, peas, squash, spinach, yams, etc., the spectrum of vitamins, minerals and phytochemicals in your diet is much greater. Also, the more colorful the type of fruit or vegetable, the more nutrient-rich it is.

Of course, fresh produce is not always available. Even though it is shipped from various parts of the country, New England's produce selection can get slim during the winter. The next best thing is frozen fruits and vegetables. Because they are picked and frozen almost immediately, nutrients within them are preserved for long periods of time. And they are not usually treated with additives other than salt and Vitamin C. Purchase frozen fruits without added sugar.

While canned beans such as garbonzo, black and kidney hold up pretty well (try to get reduced sodium versions), canned vegetables are salt-laden and suffer major nutrient degradation. This is obvious from how faded green beans and peas look coming from a can. Canned fruit suffers the same fate except it is packed in syrupy sugar. Your best bet is to go with fresh or frozen fruit or unsweetened apple sauce.

Fruit juices are a challenge to choose because they are put on the shelves with dozens of brands of fake juice. You must read the labels to make a smart choice. Avoid juices that contain high fructose corn syrup, sugar and additives like artificial colors and flavors. Natural apple, cranberry and grape juices are available in most grocery stores.

Regardless if an athlete or a tiger is on a box of cereal, the products are essentially the same. They both contain pulverized grain that has been formed into a flake or loop fortified with some vitamins and minerals. One just may contain a little more sugar than the other. Save yourself some money and purchase a can of old-fashioned oatmeal (yes, the stuff with the Quaker guy on it). Although most people cringe when I make this recommendation, I assure them that it does not take long to cook (only a couple of minutes in the microwave) or taste bland when you add fruit, nuts or honey. Plus it fills you up for more than ten minutes. Have you ever eaten more than one bowl of cereal at one sitting and still remain hungry? I am willing to bet the majority of us have.

The ninety-nine cent loaf of white or wheat bread falls into the same category as cold cereal. It is worth spending the extra buck and buying a loaf of bread that is made with whole wheat, rye, sourdough, oatmeal or multi-grains. The extra buck also gets you less high-fructose corn syrup and chemical preservatives. Similar to fruits and vegetables, proteins should also be eaten in a wide variety. Each of them contains varied levels and types of beneficial amino acids. Do not get in the rut of eating canned tuna or turkey sandwiches every day. Lean cuts of beef, pork, poultry, fresh fish as well as eggs and reduced fat dairy products contain significant amounts of high quality
protein at very reasonable prices.

Olive oil, olives, dry roasted nuts, natural peanut and other nut butters, olive or canola oil-based salad dressings (Italian, Vinaigrette, etc.) and even butter should also be on your shopping list. These food items contain dietary fats essential for proper regulation of bodily functions. Just be sure to avoid products that contain partially hydrogenated oils. Found in foods such as commercial peanut butter and margarine, they are chemically altered fats that can damage our healthy fat cells.

Finally, well-known author Dr. Barry Sears makes an excellent observation in his book called “The Zone.” He states that by choosing the majority of your food from the outer parameters of a grocery store, it will provide you with a nutrient-dense diet. This makes perfect sense because the middle of the store is mostly a maze of products that cannot even be categorized as fruit, vegetable, meat, dairy or fish. On the other hand, the outer walls of a grocery store traditionally consist of produce, meats and dairy. All the good stuff.

Ten Suggestions For Safe Resistance Training

Although resistance training is safer than most people think, all forms of training have an inherent risk of injury. Fortunately, nearly all of these injuries can be avoided by following these ten common-sense recommendations:

1. Don't lift weights alone. Accidents can be avoided when a training partner is there to help. Bench pressing is particularly dangerous— many have died after becoming trapped under a weight they couldn't lift back up. If you must bench alone, use dumbbells or a machine press.

2. Don't lift weights unless you know what you're doing. Seek qualified supervision so that you can get the most out of your training efforts, and stay safe in the process.

3. Don't lift heavier than what your program calls for. Doing maximum-effort lifts (for any number of reps) can be dangerous, are not necessary, and have little place in most athlete's training programs, except for occasional tests of maximum strength. As a general rule of thumb, leave 2-4 reps to spare on every set.

4. Don't training with weights right before skill training. Fatigue resulting from the weights will hamper your efforts at acquiring/improving skill, so do your skill training on days when no skill training is taking place.

5. Don't train your legs with weights before running or jumping rope. Tired leg muscles (from squatting and other leg exercises) mean that your hip and knee joints are not as protected, and these activities create too much shock and jarring of these joints.

6. Don't neglect to use safety equipment. Locking collars, proper training attire, solidly built equipment, and adequate space are all-important for accident-free training.

7. Don't leave weights scattered on the floor or leaning against the walls or equipment. The single biggest cause of gym injuries is failure to put weights back on their storage racks. Keep a neat & tidy gym to avoid injuries.

8. Take a moment to make eye contact with anyone else lifting nearby before heavy lifts that require your total concentration (such as squats, power cleans, or deadlights). Doing so will let them know to stay at a distance so that you can concentrate on lifting, rather than whether or not someone is going to "walk into you" during a heavy set. This sort of thing happens more often than you think, especially in commercial gyms.

9. Don't neglect any part of your body. Your training program should address every major muscle group so that a solid foundation can be developed. A neglected muscle means that you will have a weakness— a recipe for injury.

10. Don't try to unload a bar one end at a time. Taking weights off the bar on one side only causes the other side to become unbalanced and fall (or more often, catapult) from the rack—

sometimes with great speed and force. Be safe and unload plates from the bar by alternating ends.

The Most Important Form Of Recovery: A Good Night's Sleep

Generally, most people do not realize how much their poor sleep habits are damaging their health, reducing their productivity, and lessening their enjoyment of life. Whatever your station in life, sleep occupies about one third of our lives, so it stands to reason that one should do everything possible to optimize our sleep quotient.

The first step in improving the quality of your sleep is to know your sleep habits. Just as the first step in making a budget is to audit your current spending, managing your sleep should start by examining your sleeping habits for a week.

Daily sleep diary: Keep notes of when you went to bed, how long you took to fall asleep and what time you got up.

Also note any times you woke up in the middle of the night, and for how long— if you were up for more than 15 minutes. Make similar notes for any daytime naps.

Track how sleepy you feel at different times of day...

An hour or two after you wake.

During the afternoon dip in wakefulness.

During the early evening alertness peak.

Or at other random times.

Use a ten-point scale, where one stands for fully alert and ten indicates a struggle to stay awake.

After evaluating your sleep patterns for a week or so, you will notice a pattern showing your daily peaks and troughs in wakefulness.

Measure your “sleep debt.” Time how long it takes you to fall asleep while lying in bed in a dark room during the day.

If you are seriously sleep deprived, you will doze off in less than five minutes, whereas if you are fully rested it may take 20 minutes or more.

Note: When you go to bed at night, it is good to have enough of a sleep debt that it does not take too long to fall asleep.

Determine how much sleep you need per day. You probably already have a rough idea how many hours of sleep you need, so for a few days try to go to bed at a time that allows you that amount.

Monitor how sleepy you feel during the day. If you find yourself getting sleepier each day, you need more sleep than you thought. Give yourself extra sleep for a few days so you can pay off the excess sleep debt and your daytime alertness reaches a level you are happy with.

If your daytime sleepiness stays about the same, you are getting about the right amount.

Once you know how much sleep you need, arrange your regular sleep schedule to give you that amount each night.

If you are a "morning person," make sure you go to bed early enough to wake up rested. You may have to give up some social functions or stop watching the evening news. Your well being is surely worth such minor sacrifices.

Tips For Optimal Sleep

Avoid caffeinated drinks in the evening. It takes five to seven hours to get half the caffeine out of your bloodstream.

Don't eat particularly large meals late at night. Your last meal of the day should be small and ideally, it should contain "slow" proteins (e.g., meats), so that there will be a steady supply of amino acids into your bloodstream all night long.

Also, have a consistent bedtime schedule with rare exceptions.

Avoid stressful or disturbing stimuli. Don't watch the late news, with its emphasis on violence.

Unwind. Don't check E-mail, pay bills or think about work problems for an hour or two before bedtime.

Develop and follow a bedtime ritual. For instance, take a bath every night before you go to bed. It will help you relax and let drowsiness sneak up on you.

Eliminate noise. Make sure that your bedroom is quiet the whole night.

Monitor the thermostat. Keep the bedroom at a temperature that suits you.

Invest in good sleep technology! Get a bed, mattress and pillows that you find fantastically comfortable.

Do arithmetic. If you have trouble falling asleep, engage your mind with a simple, repetitive problem.

For example, count sheep. Begin with the number 1,000 and repeatedly subtract seven or some other number.

Test Your Speed Strength: The Max Jones Quadrathelon

Looking for a fun way to test your speed-strength? Try this unique, fun, and simple testing implement created by Max Jones, an English track and field coach specializing in jumps and throws. The MJQ can be used to regularly monitor levels of speed strength, and can also be used as a fun competition several times a year. This test is very easy to administer at any local high school or college track and requires only a tape measure and a stopwatch. One note of caution, however: if you haven't done any sprints or jumps recently, spend 3-4 weeks on these skills before you perform them at maximal intensity, as the MJQ requires.

The test drills are as follows:

Three Jumps: With feet together, hop three times and land in a long-jump pit. Measure from the starting position to the closest disturbance of the sand where the jump landed.

Standing Long-Jump: Standing at the edge of a long-jump pit with toes slightly over the edge of the board, perform a standing long-jump into the pit. Measure from the lip of the board to the closest disturbance of the sand where the jump landed.

Thirty Meter Sprint Using Starting Blocks: begin on the command of a timer at the finish line (a partner may place his or her foot behind the jumper's lead foot to simulate a block). The timer starts the watch when the back foot makes contact with the ground on the first step, and stops when breaking the finish line.

Sixteen Pound Overhead Shot: Standing on top of a shot-put stopboard (back to the pit), dip down (much like the preparatory crouch for a vertical jump), swing the shot between the legs, and then extend and throw the shot overhead backwards. It is not necessary to remain on the stopboard. Measure from the lip of the stopboard to the first point of impact.

The Quadrathelon scoring tables are below. Simply convert the results into the numerical scores provided for a total MJQ rating. Enjoy!

ACL: A REAL Testosterone Booster?

By Thomas Incledon, MS, CSCS (www.thomasincledon.com)

Introduction

With all the hype and attention given to creatine monohydrate, HMB, and the prohormones, it may be that other potentially useful supplements are being overlooked. One in particular is acetyl-l-carnitine or ALC for short. After reviewing numerous studies on this compound I thought it had genuine potential. I wondered if given in the right amounts it would stimulate testosterone (T) production in weight-trained males with the hope that this would lead to greater gains in size and strength. One of my workout partners tried it and guess what? His T levels increased about 13% after 30 days. I'll give you all the details, but before that let's review some basics and see how it can work.

ALC's Effects on Testosterone Stimulating Hormones

To support my position that ALC can raise T levels in resistance trained males, I want to overview some of the studies done with this compound. First, in 1991 some Italian researchers looked at the use of ALC to treat women with hypothalamic amenorrhea (1). What the heck is that you ask and how does this relate increasing T? Quite simply, these were women that were not menstruating regularly because they did not produce enough luteinizing hormone (LH). (This hormone stimulates T production by the same pathway in men). The researchers thought that ALC might stimulate gonadotropin releasing hormone (GnRH), which would then stimulate the production of LH. ALC administered at 2grams per day did in fact increase LH levels in the women that started out with low LH levels. It also increased the LH levels in some women that started out with normal LH levels. A few years later a different group of Italian researchers studied the effects of ALC on GnRH and LH levels in female rats (2). Guess what? It increased levels of both hormones. Studies with isolated cell cultures has also confirmed that ALC can stimulate GnRH release.(3). I mention these studies so that you can see the effects of ALC on isolated cells, female rats and women were all similar—increases in hormones that can lead to greater increases in T production.

ALC's Effects on Teestosterone

So, if ALC can increase GnRH and LH in women and female rats, the big question is, can it increase T in men? Let's find out. Yet another Italian research team examined the effects of ALC on reproductive function in male rats (those Italians sure love this ALC!) (4). They found that ALC increased the production of T. In 1993 another study on ALC and male rats was published (5). Here they swam the heck out of the poor animals. Now when you chronically overtrain, your T levels drop (This may be why your girlfriend doesn't look so pretty any more!). These guys gave the rats some ALC (computed out to be about 50 mg/kg of bodyweight) to see if it could prevent the decrease in T that occurs with overtraining. They found out that it does (at least in male rats). After I had read all of this I though this stuff has to be able to increase T in men. One of my friends was curious to try it so we took some of his blood. Started him on ALC for 30 days at 1 gram in the a.m. and 1 gram in the p.m. He

weighed 90 kilograms (198 pounds) so this works out to about 22.2 mg per kg of bodyweight. This is much less then what the Italians were giving the rats. Now my buddy was a bodybuilder/powerlifter and had been training for several years. When his T levels were checked they had increased 13%. Now we only measured total T. Some of you will know that the free T and albumin bound T are really important in terms of muscle building and total T doesn't tell us what happened to those fractions. My guess is that the free T would have increased by about the same amount.

Important Considerations and What To Expect

The bottom line here is that ALC should be able to increase T levels at the right dose. Will this lead to greater gains in size and strength? I believe it can—the question is how much do you need to take for it to work. Now don't expect steroid-like results. It won't happen because the increase in T is not big enough. It also won't equal the increases in T that some of the prohormones are claimed to cause. It also won't happen as fast as the results from a loading phase of creatine. So why take it? First, you don't have to cycle its use like you would with other products. Second, dozens of other studies have demonstrated many positive effects of ALC on the skeletal muscle and nerve cells. This has the potential to enable you to train harder and recover faster.

A rational way to begin is to start at the 2 grams per day for 30 days. If you can, get your free T levels checked before starting the supplement. After 30 days get your free T levels checked again. Take 1 gram in the morning and 1 gram later in the day. It can also stimulate blood flow to the brain so my suggestion would be to take one of the doses about 30-60 minutes before going to the gym or before the part of the day comes when you start dragging (between 3-5 PM for most). Keep a diary about how you feel prior to going to the gym you should see an improvement in you mental focus. If not after 30 days increase the dosage. I know some athletes who pushed the dosage too soon, to 5 grams twice per day. They developed diarrhea, which means they are leaving most of their ALC in the toilet. The rule of thumb for that is: Cut back on the dose until the diarrhea subsides, then gradually increase the dose to a level where you can feel a difference in your performance. The "gradual increase" and "feel a difference" are very individually determined measures. Feel free to email me with your questions, comments and concerns at: Tom@thomasincledon.com

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Understanding Shoulder Rotator Cuff Problems

Of all the common injury sites among resistance-trained athletes, the shoulder probably ranks first in both acute and chronic problems. The structure of this joint favors mobility over stability, and this fact is something to keep in mind when you choose exercises and weightloads to train muscles that involve the shoulder.

The rotator cuff tendons attach to the upper end of the humerus and help to rotate the humerus in the shoulder socket (glenoid) as well as to pull the humeral head down as the deltoid muscle pulls the humerus up. Tears of the tendons, particularly of the supraspinatus tendon, can be caused by injury to the shoulder and/or the gradual degeneration of the tendons from pressure and friction caused by the overlying acromion process. The symptoms of rotator cuff tears consists of weakness and pain, particularly with shoulder elevation and at nighttime.

The diagnosis is usually suspected after a physical examination, but can be confirmed by an arthrogram (an x-ray in which dye is injected into the shoulder to see if a leak is present), by an MRI (magnetic resonance imaging), or by arthroscopy. Treatment in active patients should consist of early surgical repair of the tendons; if the tear has been present too long repair may not be possible. Arthroscopy may be useful in decreasing the size of incision needed for repair and, in older, less active patients, in relieving pain by opening up the space under the acromion (acromioplasty), taking the pressure off the torn tendon without repair of the tendons.

Convalescence following rotator cuff repair requires time to allow the tendons to heal, followed by protected motion to decrease the troublesome stiffness which frequently occurs, and, finally, muscular strengthening to increase function and to protect the repaired tendons.

Shoulder Rotator Cuff Tendinitis/Bursitis

The tendons of the rotator cuff, which rotate the upper humerus and help raise the arm by pulling the humeral head down as the deltoid muscle pulls the arm up, can be irritated by pressure from the acromion process of the scapula and the coraco-acromial ligament. This irritation of the tendons and/or of the lubricating bursa is referred to as "tendinitis" &/or "bursitis." Collectively they are known as an "impingement syndrome."

The symptoms of impingement syndrome are typically those of pain, usually with motion and at night, but sometimes constantly. There may be snapping sensations with motion. Aspirin and ibuprofen frequently help to alleviate the pain. Often the symptoms start after an injury due to the resultant weakening of the shoulder muscles caused by the pain from the injury.

The diagnosis of impingement syndrome is made by physical examination, and assisted by plain x-rays, and, sometimes, arthrograms or MRI's to exclude rotator cuff tears.

Initial treatment consists of oral or injected anti-inflammatory medications, and strengthening of the shoulder musculature. If these fail, surgical removal of the offending acromial prominences or spurs, either by open or arthroscopic means may be done. If the tendinitis is due to a shoulder instability problem, surgical correction of the ligamentous laxity may be necessary if strengthening is not helpful.

Practical Suggestions:

• Do not continue to exercise a symptomatic shoulder joint. Instead, seek appropriate medical attention in an effort to diagnose the problem. Once you know exactly what the problem is, you can make intelligent decisions regarding how to deal with it.

• If you suddenly experience shoulder pain and/or weakness during exercise, immediately discontinue the offending movement and apply ice to the painful area. If the symptoms are significant and/or you notice significant swelling, seek medical attention immediately. If the symptoms are relatively minor, and if they diminish over the course of a few days, continue as usual.

• Use caution when implementing new and/or unfamiliar exercises which place stress on the shoulder joint.

• For most people, overhead pushing and pulling exercises are safer when performed with the bar in front of the head (as opposed to behind the head). Behind-the-head movements require more external rotation of the humerus than what many people are capable of.

• Bench presses are generally safer on the shoulder when performed with a closer grip (shoulder-width or slightly wider) and with elbows closer to the torso. For a closer look at the safety issues involving the bench press, please see Dr. Ken Kinakin's excellent article Bench Press Blowouts.

Your Worst Habit May Be Something You've Never Even Thought Of...

Perhaps the most common oversight made by fitness-conscious people is failing to consider the downside of everyday, *non-training* activities. Typically, most fitness buffs will be very careful about their form when exercising (which comprises perhaps 5-10% of all activities in any one given day) yet totally ignore the potential consequences of other activities which make up a much greater portion of our lives. Ironically when problems arise, blame is usually assigned to the training activity.

One such non-training activity that everyone spends a considerable amount of time doing is sitting. Given this fact, it would seem prudent to study this postural position, and in particular, it's effects on the spine. People are usually surprised to learn that pressures on the vertebral disks are higher when sitting than when standing or even lying down. In fact, some experts suggest that interdiscal pressure when seated is up to 11 times greater than lying down. This risk is particularly insidious because sitting is not normally associated with back pain, whereas standing often is!

How Sitting Results in High Loads to the Vertebral Disks

Many people who, having had the experience of back pain while standing for long periods of time, and the subsequent relief that comes from sitting, have difficulty understanding just how sitting can place undue pressure to the vertebral disks. In order to understand this concept better, let's have a look at the following:

1). First, the distinction must be made between the back muscles and the vertebral disks. When you stand for long periods, the disk pressure is relatively low, but you nevertheless feel pain, which is a result of fatigued low-back muscles.

2). Increased pressure on the disks in and of itself does not necessarily result in immediate pain. Thus, we are often unaware of this pressure, which in the long term can lead to deformative changes in the disks.

3). Now to the real mystery— how can sitting create higher intradiscal pressure than standing? It's because, when standing, your bodyweight is distributed over a wide variety of structures, including muscles, tendons, ligaments and joints. Upon sitting down, however, the abdominal "corset" relaxes, which causes a majority of your bodyweight to load the disks. As we mentioned earlier, you probably will not feel any pain at all when this happens. But over the long term, the constant, increased load upon the disks can result in a multitude of problems, from impinged nerve roots to degenerative osteoarthritic changes.

Workplace Ergonomics

Since sitting is inescapable for most of us the best advice is 1) to limit time spent sitting as much as possible, and 2), design your workplace (which includes, but is not limited to your chair) with the following in mind:

• Chairs with lumbar supports (sufficient to maintain, but not exaggerate the normal lordosis, or sway, of the spine have been shown to result in lower interdiscal pressures than chairs without these supports.

• Chairs with armrests also reduce pressure on the disks.

• Sitting in a reclined position (120 degrees seems optimal) lowers disc pressure, so make sure your chair allows you to alternate positions!

• Since keeping the knees close together makes you more prone to "slumping," choose a chair that is wide enough to keep your knees apart. Also, if you sit at a desk for long periods of time, make sure that it allows you enough space to open your knees.

• When selecting a chair, adjustability is crucial. This is because people come in different shapes and sizes, have unique needs for their work-station set-up. An adjustable chair will ensure that you can optimize your own work-station for the best possible ergonomic effect.

• At your work-station, your chair/desk arrangement should be such that your forearms rest on the desk, elbows at a 90 degree angle and close to your sides— this position reduces stress on the trapezious and surrounding muscles of the upper back and neck.

• If you work with a computer monitor, or anything else that you visually refer to often, keep it straight ahead and at eye level— if your focal point is lower than this, it sets you up for a rounded, slumped forward posture. Remember— virtually all postural related spinal disorders are preventable! Although the dangers of sitting for prolonged periods of time may not seem like a pressing issue at the moment, over the years it has a cumulative effect on the spine— just take a look at many older people who have acquired debilitating hunchbacks and other deformities from lifetimes spent in poor posture.

Notes From a Reformed HITer

by Aaron Antcliff

Editor's note: Aaron is very representative of the unnatural approach to training. He was open-minded enough to try a new strategy based on logic rather than dogma, and achieved particularly unnatural results for his efforts.

OK, I admit it, I'm a reformed HITer. I used to train twice a week, 20 minutes per workout, two exercises trained to absolute failure for 1 set apiece. I trained so hard I would collapse after a set of deadlifts. We used to call squat day "bring-your-own-bucket" leg day. I read all the HIT stuff I could get my hands on. Mentzer, Darden, Jones, the ding-dongs that call themselves Jedi at cyberpump. All claimed miraculous results with a minimum of sets, but near blinding intensity. My results for nearly 2 years were marginal. I figured I was a hardgainer (there is probably no such thing) and that at the end of my membership I was going to quit training.

After digging around on the net and reading some articles by Charles Staley and a guy they call "The Evil Russian:" Pavel Tsatsouline.

I thought I would give a shot at something new and different. Their recommendations were completely alien to me: multiple sets low reps and avoid failure like the plague. What the hell, I thought, I'll use some of these ideas and see what happens. A week after following some of the principles in Charles's articles, I took on a pumped kind of look. Like I got kind of puffy. I decided that this was the routine that I was going to use for the next three months. My results still stupefy me: 9 pounds of lean body mass and greater total body strength. Not bad for breaking every training tenet set forth in the magazines!

This is how I got started: I stopped defining intensity as state of exertion and started defining it as the total number of sets, reps, and total poundage moved during a workout. This is a MAJOR distinction. It's not simply how hard you work, or whether or not you get yourself to puke after curling, it's about the total poundage you move in a workout. Muscles and bones grow by the amount of tonnage you apply to them, not how badly you can beat them to a pulp!

Instead, I began a simple program of 5 x 5 (5 sets of 5 reps) with an eye toward increasing the total amount of weight per workout for a few weeks, then scale it back to prevent overtraining and begin increasing the total tonnage all over again. I would increase this amount of weight moved in one of two ways: increasing the amount of weight and do the same sets and reps, or just tack on 1 set more than last time. This calculation is simple:

Weight x reps x sets = total poundage for that movement.

So a 185 used in the bench presses looks like:

185 x 5x 5=4,625.

In order to induce hypertrophy, I would either increase the amount of weight per set or add an additional set.

195 x 5reps x 5sets = 4,875 pounds or
185 x 5reps x 6 sets= 5,550 pounds

It struck me that hypertrophy is a function of total poundage applied. And if it is increased slightly every time you hit the gym, you will grow. That meant no more dizzy spells after lifts, or having people spot me. I could use a weight that was heavy, yet because I was avoiding failure I didn't need a spot. The only time I would come close to failure was on my last set of the exercise and even then I would stop with two reps left in the tank! And sometimes I wouldn't even sweat!

I have designed my program to include a type of volume cycling, meaning that I would slowly increase the total number of sets per muscle (and therefore the poundage) for 3-4 weeks and then cut the number of sets back, add weight and start all over again. I utilize multiple joint movements on all body parts to save time and for the use of greater weights. My progression looked like this:

Week 1: 5sets
Week 2: 6
Week 3: 7
Week 4: 8
Week 5: back to 5 sets

I kept the weight increments small, 5 pounds on curls and 5-10 pounds for the major bodyparts.

I did typically 3-8 sets of an exercise per cycle, depending on the muscle group. For instance I would do the 5 x 5 for my curls and add a set every week, and for back I would start with 3 sets of chins and 3 sets of dumbbell rows, adding a set to each movement for few weeks before scaling back and starting again.

I kept the reps lower than I've ever used, usually around 3 to 5, which let me use some greater weights. I believe that the greater weights add more tension to the target muscle, a key point in protein degradation that is a catalyst for growth. Not only that, but the heavier weights seem to add to the thickness of a muscle fiber and isn't just sarcoplasmic (pumped). I've kept my rest periods up to 3 min between sets (I've been getting some interesting results with Pavel's "Russian bear" routine that involves rest periods of 1 minute or less) which allowed me to keep the weights heavy and kept me from outrunning my body.

I used a body part split from Charles Poliquin where I trained 3 days a week:

Day one: Chest and Back
Day Two: legs

Day three: off
Day four: shoulders and arms
Days five—seven: off

As far as tempo goes, I kept a 301 tempo on all movements.

This may not be a complex routine, but the careful application of ever-increasing poundages coupled with sufficient rest has turned out to best experience I've ever had. I am continuing this style to see how far I can get and am more than interested in sharing any ideas with anyone who has had success with similar programs. Thanks to Charles for allowing me to share this with everyone!

Tactical Training For The Combat Athlete with Tim Larkin (www.TFTGroup.com)

How To Make Your Practical Fighting Training Really Count

For this inaugural issue of *The Unnatural Athlete* I want to delve into the practical application of training in your chosen combat sport or martial art. What I mean by practical application is the portion in your training where you simulate real attacks. This is sometimes called one step sparring, free fighting, self defense drills, etc…

The purpose of this session is for your training partner to simulate an attack and for you to destroy the attacker. Often this is where I cringe as an instructor because most practitioners tend to go through the motions rather than taking advantage of training time that arguably could very well save your life. So here are three questions to ask yourself next time you have one of these extremely valuable training sessions.

1. Are You A One-Armed Fighter?

After training a while you may discover you favor certain techniques during your free fight period. Most times this tends to show itself by using only your dominant/strong side. Other times you may find yourself using the same technique or strike over and over again. If you find this is the case with you, apply these variations to your training:

Strong-Side Take Away – This involves taking away your strong side arm. If you are right handed you put your right hand in your pocket or waistband and free fight with the rest of your body weapons. Doing this every 5th free fight period will force you to work your weak side in order to balance off your body.

Legs Only – Try a couple of freefight periods fighting using your legs only. This builds tremendous versatility in your training and forces you to utilize targets using your legs in a variety of strikes.

Elbows and Knees - During your freefight period confine your body weapons to your elbows and knees. This builds 2 fighting skills : 1) Ability to close distance, in a fight closing distance offers you a distinct advantage, using only your elbows and knees you are forced to close distance to strike targets; 2) Teaches you to generate kinetic force in your strikes. In order to properly use elbows and knees you need to use your hips to strike with any power. This drill forces you to develop both of these necessary skills.

2. Are You Sure You Hit Your Target?

No, I'm not being a smartass. After watching the attendees to my *Hand2WeaponTM*, training seminars during their free fight periods it is very apparent that the majority of people don't look at the target they are striking. Even worse they do not make contact with their body weapon and the target. If you are doing a one knuckle punch to the temple then your knuckle must touch the temple of your training partner and you must be looking at the temple as you strike it. If you do not do this you will not code your brain correctly for those targets and you

will not be accurate in your striking in a real fight. You and your training partner must go slow at first to code your striking using this method it is critical to your fighting success.

Don't make the mistake of sacrificing speed for accuracy. At first you may have to go extremely slow while you adjust your body weapon and eye coordination to code this striking info correctly. You also have to give your partner time to give the proper autonomic nervous system reaction (e.g. a kick to the groin results in a reaction of the body moving back approximately 1.5 steps, the torso bends down and the head and chin juts up). This manner of training allows you to correctly target vital areas on the human body without inflicting serious injury on your training partner.

As you progress with your training you will be able to increase your speed. You also will be able to increase your contact with your training partner as you both learn proper autonomic nervous system reactions. This increases to the point where most fighters can train at what is considered full contact speed but with real accuracy. Take the time and develop these skills. Remember you fight like you train. Make sure you train to accurately hit your targets.

3. Did Your First Strike Create At Least One of These Results?

Your first contact with your attacker is critical and when you put your hands on him for the first time one of 3 results must occur:

1. Take His Balance
2. Create "Chaos"
3. Knock Him Out

If you have put your hands on an attacker and this has not occurred you are WRONG! The rest of your strikes won't matter if your first strike is wasted with an ineffective blow. Let's examine each of the three options:

Balance – Most people have horrible balance. It is very easy to get them off balance with proper strikes. Make sure you complete the arc of your strikes in order to take his balance. With your opponent off balance you can deliver another strike to him before he can recover his balance.

Chaos – You create chaos in your attacker when you strike multiple targets in the body simultaneously. The attacker can't process what is happening to him and he goes into chaos which shuts him down during the fight giving you an opportunity to strike another target and finish him off.

Knock Out – When you strike a target which knocks out the body's central nervous system either temporarily or permanently (lethal) you have defeated the threat.

Make sure and evaluate your training sessions and honestly answer whether or not you accomplished one of the above three conditions on your first strike. If not correct this immediately. You may only get that one chance to take out your attacker.

Tim Larkin is a Master Trainer in Hand2WeaponTM, with over 20 years experience in the martial arts and military hand to hand close in combat training. Formerly a master instructor with the SCARS Institute, Tim has provided hand to weapon instruction for members of some of the most elite units in the special operations arena including US Army's Delta Force, US Navy's Development Group (Formerly SEAL Team Six), USMC Force Recon, US Army Special Forces, USAF Combat Control Teams and the FBI's Hostage Rescue Team. Mr. Larkin is a consultant for various training companies and offers a limited number of seminars in his Hand2WeaponTM system to the general public at his training center in Las Vegas, NV. For information on these seminars call toll free 888-285-6192 for a 24hr recorded message.

Woman's Training with Rachel Cosgrove (www.AlwynCosgrove.com)

In the forthcoming issues of The Unnatural Athlete, we will be including a column to specifically address issues for female trainees. In order to do this effectively, we have enlisted the services of Rachel Cosgrove— one of the country's top female conditioning coaches. Good female trainers/coaches are hard to find as historically there has been a tendency for females to follow the aerobics instructor route but hopefully this newsletter will change all that.

There is also a larger amount of information available in the field directed exclusively towards men— there's Men's Fitness, Men's Health and we have even heard that there is a magazine called Testosterone :) As yin completes yang, and night completes day— we will complete the training information circle with this ongoing column. By way of introduction, we introduce you to Rachel Cosgrove. Enjoy the interview .....

Q: Rachel, What got you into this industry?

RC: I have always been active growing up. I danced (tap, jazz, ballet) competitively for many years. I never had a skinny, waif like body like all of the other dancers. I was always more of a mesomorph and growing up I would always compare myself to the other dancers. I started going to the gym with my dad when I was about 15 and I loved seeing my body change. That was when I realized that being a mesomorph was actually a good thing and how great muscle looked. I chose exercise physiology as my major in college and I was fascinated by it. I started teaching aerobics and I continued dancing and moved to New York when I graduated from college to pursue a dance scholarship I had received at one of the top dance schools in New York. Living in New York opened my eyes to how brutal, competitive, and cut throat the dance world could be. I just wanted to dance because I loved to dance, not to make my next paycheck. This is when I decided to pursue my other passion...Fitness. I became a trainer in 1997 and met Alwyn Cosgrove and realized how little I knew about training. I have loved learning and helping people ever since. I started competing in Fitness competitions in 1998 and was able to incorporate my two passions into one sport— dance and fitness.

Q: What is your current job? Would you describe your typical day for us ?

RC: Currently my husband, Alwyn Cosgrove, and I run our own fitness and sports training center in Santa Clarita, California. So I am a trainer, a manager, a secretary, an accountant and my own boss. I train between 25-30 clients a week. A typical day... wake up at 4:30am (I'm a morning person), train my first client at 6am and train clients until about noon. I take a lunch break until about 1:30 and then train people until 4:00. This is when I do my own training and I'm home by 5:30. My day consists of all shapes, sizes and ages of clients. I love my job and I love helping people achieve their goals.

Q: What qualifications do you have?

RC: I have a bachelor of Science in Exercise Physiology and am a Certified Strength and Conditioning Specialist with the NSCA. I also hold many other certifications such as with the

International Sports Science Association, Ian King's Foundations of Physical preparation certification and with the Aerobics and Fitness Association of America. I am currently in school earning my masters in dietetics and nutrition. I have also taken seminars with Charles Staley, Ian King, Charles Poliquin, Eric Serrano and Charlie Francis.

Q : Who has influenced you in your career ?

RC: My dad is the one who first introduced me to the gym and weight training, we used to get up at 5 am three mornings a week and ride our bikes to the gym before work. He use to teach me all of his "old school Charles Atlas" training techniques. Alwyn Cosgrove hired me for a job at Golds Gym in Times Square when I first decided to become a trainer and I thought I knew all their was to know.... He opened my eyes to how much I still had to learn. He taught me a great deal about program design and introduced me to people such as Charles Poliquin, Eric Serrano, Charles Staley, Charlie Francis and Ian King who have all been influential in my career. I have taken extensive seminars with all of them and have furthered my knowledge of training even more.

Q: Do you feel there is a shortage of good females in the Fitness Consultant business ?

RC: There isn't a shortage of females but there is a shortage of qualified, knowledgeable females. Too many females get away with not knowing anything about training because they are in great shape themselves. At most of the seminars I go to I am always one of 2-3 females in a room full of men. Sometimes I have been the only female. There don't seem to be too many female trainers learning and expanding their knowledge of training.

Q: Any advice in particular for females in the field ?

RC: Read, go to seminars, and learn everything you can. It is important to keep up with such a fast changing industry, never stop learning. Don't feel like you have to prove yourself because you are a female in this industry, as long as you are knowledgeable and know what you are doing you will gain respect. Most men think they know more about weight training then any female no matter how much experience they have. I have had male clients who didn't want to train with a female but eventually trained with me reluctantly. Because I knew more about training then they did I have kept them as clients and they refuse to train with anyone else. Just be knowledgeable.

Q: What specific problems do you see that women have with their own training ?

RC: Most females are scared to lift too much weight and prioritize aerobics over weight training.

They don't want to "bulk up" so they lift light weights for lots of repetitions. This is the biggest mistake because if they don't lift enough weight they will never get lean. Females don't realize how hard it is to bulk up. Two years ago I started competing in fitness competitions and a judge told me I needed to add some muscle to my shoulders and my legs. For two years I have been trying to "bulk up" my shoulders and legs and let me tell you that

getting too bulky is not a problem. Also when you have more muscle and less fat women don't realize that they are actually smaller, too much muscle is a good thing.

Doing a lot of aerobics is also a common mistake most women make. Aerobics is actually counterproductive. Doing too much will result in burning up muscle tissue and slowing your metabolism down.

So women— Make sure you lift heavy and stay away from the aerobics classes.

Q: What do you know now that you wish you knew five years ago ?

RC: I wish I knew as much as I do now about personal development, goal setting and developing a plan for my life. I have always had a philosophy of "Jump and the Net will appear." So taking risks was something I was never scared to do, I just never had a plan once I jumped. I have recently learned how to direct those risks and chances into a plan for what I want out of life and accomplishing what I set out to do. I have learned that if you set a goal you can achieve it. Anything is possible!

Q: What do you see as the biggest problem in this industry today ? And what can young would-be trainers/coaches do to avoid these pitfalls ?

RC: The biggest problem is a lack of standards in our industry for fitness trainers. There are so many trainers who don't know what they are doing, injuring people and giving us the stereotype of a "personal trainer." There are still gyms who hire underqualified individuals without any certifications or experience. This makes it hard to gain respect as a trainer.

To overcome this trainers need to become much more then this stereotype and create a standard far beyond that of the typical trainer. Take continuing education, learn about rehabilitation, gain knowledge that will set you apart from an industry that has a low standard currently in place. We need to change that standard.

Q: And following on from that— what, if any pieces of advice would you like to pass on to the readers of this newsletter ?

RC: Enjoy what you do, take chances, and set goals for yourself professionally, physically, financially, and spiritually.

The Winning Mind with Ed O'Keefe

Emotional Power

Excerpt taken from Ed O'Keefe's "Athlete's Ultimate Mental Toughness System." Visit his site at www.uramazing.com for more information.

It is time to stop being treated like a dog and stop acting as if you are one!

My goal is to teach you what different emotions mean and how to create what we in neuro-linguistic programming call anchors. You will then be able to condition your mind and body to access peak performance emotional states consistently.

Let's begin. In your mind finish these sayings:

"Give me a break. Give me a break. Break me off a piece of that_____."

"Wheels on the bus go_____."

What about the Brady Bunch theme? "Here's a story of a lovely lady_____."

Or what about the Barney song? "I love you, you love me, We're a_____."

Even though you may not have heard these in a while, your brain still remembers them. All these little songs or commercials are what we call anchors. Anchor is defined as any stimulus that is introduced to your senses while you are in an intense emotional state. The more unique the stimulus, the more effective it is.

Anytime you elicit certain emotions and attach them to something else (a person, place, thing or the environment), you create an association.

Years ago, a psychiatrist named Pavlov put a dog on a chain and set a bowl of food just outside the dog's reach. Once the dog began to salivate, Pavlov would ring a bell. Then he would pull the dog food away, and the dog would salivate. Pavlov repeated this process so many times that eventually as soon as the bell rang, the dog would salivate. The dog created an association to hearing the bell and reacted by salivating.

This works in your life as well. Do you know someone who instantly causes you to get a heavy feeling in your stomach when you see them? Is there a certain cologne or perfume that reminds you of a special someone? When you think of a certain opponent, do you immediately get excited, nervous or totally confident that you will perform at your best?

In all these cases you have anchors built up at an unconscious level that direct your focus and your emotions. Many people have heard about Pavlov's dog, but very few people actually use the theory for their own benefit. My goal is to show you how to use it so that you can have an advantage over your competition and make your team better.

Think about all the different emotions that you experience before, during and after competition. Notice which of these emotions are negative, like anger, stress or anxiety. What if you were able to bypass these energy-consuming emotions and direct them into motivation, courage and confidence? Then when you walked into an athletic arena, you would be so focused on what you need to do that you would not have time to worry and waste your energy.

Some people believe that stress is good. I agree that sometimes a little nervousness is not bad. I know basketball coach Rick Pitino says that his personal positive stress is what moves him to be a good coach. The question I always ask is how long do you stress, worry or stay nervous? Do you fire into an emotion of total power and confidence or do you find yourself hesitating, feeling worn out and waiting until the game gets going before you start performing at your best? If you want to be a champion and master your emotions, you must realize that EVERYTHING COUNTS!

Every single thought, feeling and movement is important in competition. Ask yourself if the emotions you feel are moving you closer to your goal or are they slowing you down? What if you had a strategy for the moment you started to feel nervous? Then you could immediately change worry into a confident attitude. As soon as you started to worry about whether you were going to lose the match, you moved immediately into the process of focusing on the best strategy to defeat your opponent.

Think about if it was possible to take all 100% of your energy and focus on getting the results you want. Feeling the way you want to feel so that you are faster, quicker and better at anticipating the other team's next move would enable you to lead yourself and others to the next level.

In sports I see athletes all the time hesitating instead of laying it on the line and going for it. Many of the errors that I see in competition are due to hesitation, worry, lack of confidence and fear of failure. This is especially true in inexperienced athletes. However, even at the professional level of any sport you will observe people struggling and exhibiting the same behaviors.

By learning about Pavlov's dog and everything else in this article you will now be more aware of why some athletes are struggling and why others are not. When you face your opponent, you will be able to look at him or her and see something that others do not. You can look at him and get a sense of what he is thinking based on his physiology, tonality, gestures and much more.

Sounds great, Ed ... how do we do it?

The first step in mastering your emotions and taking total control of your performance is managing your physiology, self-talk and images. Another option is to ask yourself a question to immediately change your focus. For example, when athletes struggle, the tend to ask the question, "What's wrong with me?" The problem with this question is that it directs your emotional state and focus on what's wrong with you. Also you are presupposing something is wrong. The truth is, you may just being doing something incorrectly perfectly. Hmmm…new way of looking at it isn't it? Anyhow, so what you might ask instead is, "What can I do right now, to do X (be at my best, stay focused and confident, be faster and quicker than my opponent)? " This type of question puts your mind and emotions in a resourceful state which allows you to be sharper, faster, and much more powerful.

The next step is to anchor yourself for success. Anchoring is a way of conditioning your mind to respond naturally without any hesitation.

Most athletes focus on negative past events and mistakes, while true winners look at their mistakes as opportunities for growth or simply feedback. This is important. There is much to learn from the past, but there is no need for you to dwell on mistakes you made in the past. For example, imagine that you are a no holds barred fighter going into your next fight while replaying all of your mistakes from the last fight or when you last got knocked out. All you are doing is priming your body to repeat those mistakes. However, if you made a mental note at the time of your error, then you can correct those mistakes immediately and move on. Simply replaying the error in your mind is only harming your productivity and actually conditioning your body to replay the error. Which means, you'll get knocked out again unless you change it.

Why do athletes replay their mistakes so much?

There are many reasons. One is that they are conditioned to focus on what they did wrong. Two, they are not confident enough in themselves. If you knew that you were going to perform better in the future, you would not need to worry about last night's performance. Finally and most importantly, I just do not think athletes have been shown how to re-direct their focus.

People will often ask me, "Isn't it necessary to address your mistakes?" Of course, but only for extremely small amounts of time. Also, it is even better to address your mistakes in 3rd person, and then rehearse your corrections in 1st person. Ya see, most people don't take feedback well, because they take it personally. So, let's just handle that by watching video or thinking of your mistakes as if it was someone else, but then make the corrections and visualize them in 1st person. Your brain loves to feel good and learns much faster when you feel good. This will allow you to accelerate your speed of learning new behaviors.

Personally, whenever my brain wants to start beating me up, I will catch myself because of the way I have conditioned my mind. My mind and body will send a message to me saying that I am going in the wrong direction with my focus. It does take time to get to this stage, but if you learn how to feel better more often and become the master of your focus, you will

start getting very similar results. Furthermore, this can become an unconscious process by doing a few exercises, and here is one.

Circle of Excellence

First, stand up, shake your body out and put yourself in an extremely confident physiology. Pick three emotions that you want to feel while competing or preparing to compete. Three powerful emotional states that benefit athletes are confidence, relaxed focus and a go for it attitude

Step 1: Take a deep breath, and as you exhale, remember the last time you felt confident. Imagine that in front of you on the floor is a circle with a light representing confidence from the floor up to the ceiling. As you are standing next to the circle, envision all the confident feelings you had going into the circle. Notice what you said to yourself ... what images did you see? Make the picture bigger and brighter and bring it closer. Notice how the light in the circle is starting to speed up, and keep concentrating on the feeling until you can tell that the emotion you felt back then is there in the circle.

Step 2: Step into the circle! Take a deep breath, squeeze your left fist and let all the emotion shoot through your body from your toes to your head. Hold it for ten seconds as you smile and enjoy this feeling.

Step 3: Now, step out of the circle allowing all your feelings to stay in the circle. Do the same with relaxed focus and a go for it attitude. Pick any other emotions that you would like.

Step 4: Identify where you would like to have these emotions in the future, and put them there. For example, if you need to feel more powerful and confident when you step into your arena of competition, step back in the circle and re-associate to all the emotions. Squeeze your left fist, and then visualize yourself walking into the arena you compete in.

If you need to have a great last kick in a race, see yourself getting a bundle of energy at those moments. Visualize the light from the circle shooting from your feet, up through your arms and making your whole body lighter and stronger. Imagine the competition getting really tight and notice how much stronger you become. Imagine yourself being tired after a long play and then all of a sudden getting a huge energy burst.

(Sidenote: You may wonder why you would see yourself being tired first, followed by the energy burst. You can visualize continual energy, but realistically there are going to be plays where you are out of breath, no matter how good of shape you are in. What you are doing is creating the stimulus - out of breath, tired, fatigued and the response - sudden bursts of energy, power and confidence).

Do this with three to five events, and you will notice that you start creating powerful associations everywhere you go. If you are going to play a tough competition in the opponent's gym, do this exercise. Imagine yourself in tough situations during the game. You will notice that you instantly go into this powerful state.

I did this simple exercise with DePaul University women's volleyball team, and here is the feedback from Patti Culloton, assistant coach:

"Friday night's game was amazing! We were on fire! For the first time the girls believed in themselves and played to not only win but to destroy the other team. Between games two and three they were doing a chant and it kept them on fire. Our girls are excited to play and hopefully will continue to play this way straight through to the conference championship!"

Also, one runner I was working with took 18 seconds off his 3000 meter run in less than 2 weeks time!

The results with this technique are instantaneous. It is a much more powerful technique than relying on affirmations, self-talk or being positive because we are conditioning the mind for an instant response.

These methods can be used for coaches who experience nervousness before a match or a lack of self-confidence against a particular opponent. I used this when coaching to change into a confident state. I saw myself out-coaching the opposing coaches and my players out-playing the other team. First, this gave me insights to do what I needed to win, and I was more resourceful. Secondly, when I saw the team we were going to play and the other coach, my whole body went into a state of confidence because I set up the anchor before I even met them.

Many athletes do this naturally when they are performing well, but then stop doing it when things are not going well. My belief is that you can become more consistent, more powerful, more confidant and much more effective if you take this simple exercise and do it consistently!

Ed O'Keefe is a coach and master practitioner of Neurolinguistic Programming and Ericksonian Hypnosis. O'Keefe consults with athletes of various levels, presents seminars and writes publications regarding peak performance. To learn more about him, go to his website at http://www.uramazing.com

Smart Nutrition with Scott Mendelson (www.nfinityFitness.com)

Prioritize Your Priorities!

As a supplement vendor and professional consultant I have been able to form only a few solid theories over the years. One of these theories pertains to the role of supplements in the fitness industry. Consumers are always willing to spend inordinate amounts of time researching and studying supplements, supplement "stacks," and so on, in a misguided effort to find the next "wonder pill." In many cases people are left disappointed with their financial investment because of their unrealistic expectations and confused priorities. Supplements are an effective tool, but will do little in the absence of sound training and nutritional habits. So, in much the same way that a financial advisor would recommend that you pay off your credit card debt before you start messing around in the stock market, what I am suggesting is that you get your diet and training in order before wasting your money on supplements.

I spend a tremendous amount of time answering emails from customers, and many of these messages pertain to supplements. It always amazes me when I see the poor training and nutrition programs sent to me (in the rare cases when the customer even has a plan to begin with!). I frequently ask customers to see this information so that I can make more refined recommendations to them, but many people are hesitant to send their programs, claiming that they don't understand why it matters. They will send replies like "why do you want all of this information, I have the supplements I need so I should be fine?" Commercialized marketing hype (and perhaps plain ol' denial!) have gradually warped consumer priorities.

Of course, we live in a pill popping society, which tends to shift the blame away from personal responsibility and toward external factors such as nutritional supplements. Obviously, blaming oneself just doesn't fly in a society full of apologists and excuse makers! Nevertheless, those who are willing to learn from mistakes and hardships will eventually prevail if they apply their acquired knowledge and if they are willing to make sacrifices.

Both training and nutrition can be a source of confusion for all of us all of us at times. Many of suffer from "paralysis by analysis," wondering if *anything* we are doing is right, and battle with ourselves over which method is best. Creating a sound training and nutrition plan can be painful because it actually requires critical thought, research, and patience. Purchasing and taking a supplement is relatively easy and it seems as if it can calm the voices in one's head screaming "you are not doing enough to succeed." I like to sit down with clients and form a plan with their input as one of the primary guidelines. We often stare at each other for a while until the client realizes that the exercise is not a joke. My clients leave meetings with detailed plans, goals and strategies that will provide the guidance required for success. A plateau in progress is going can be broken with adjustments in training and or nutrition in a high percentage of cases for the advanced trainee. In all cases however, a detailed plan is the first step in the right direction.

I find that trainees are able to rapidly increase training intensity when a plan is in place because they only have to focus on execution. Why not invest in hiring a professional to help form a customized plan? Would it be of value to you to have an expert design a sound fitness

plan for you? I often ask people if they would feel comfortable representing themselves in court. Typically the response is "Of course not— I have no legal expertise, that would be stupid." I proceed to ask these same people why they haven't hired an expert to help them with a training program. On some occasions, customers explain that they are experienced trainees and can handle their own arrangements. I then ask if they are achieving the results they desire and in most cases they are far from their goals.

Several decisions must be made before you can be prepared to form a comprehensive program. Too many clients have a wide range of conflicting goals. They "want to get shredded and add slabs of muscle at the same time." It is best to pick a single direction and commit to it for a reasonable period of time and then later, perhaps alternate the focus at the right time. The best results will be realized when a single direction is chosen such as gaining lean body mass. To gain lean body mass a trainee will train, eat and supplement in a certain fashion to achieve a synergy. It is possible to achieve several things at once, but it is typically done at a slower pace due to the compromises that must be made. Clients will often desire to lose fat and gain strength or size at the same time. Yes, it can be done if the proper plan it put into place. Other factors such as body part prioritization, injury rehabilitation and posture must be considered when designing a effective battle plan.

Information (when correctly applied) is a powerful tool and I rely heavily on the client for the data and feedback needed for key decisions. Only the client has the ability to express how they feel, which is an important factor in judging recovery. My programs include a variety of details such as reps, rest, tempo, etc., but it is up to the trainee to execute the program and record data. Training data is a vital tool that I can use to design future training programs for the client. As an internet consultant I may never see certain clients and I must rely on the data they send to make important decisions. Some clients fabricate stories or fail to do what is within the plan for the wrong reasons. This is equivalent to pissing into a strong wind coming towards you if you know what I mean. You must be honest with yourself and adjust accordingly for the right reasons. Don't abandon a nutrition regimen because it is uncomfortable at times, but instead, make adjustments or compromises after a period of critical thought. Discipline goes a long way— avoid rationalizing and making excuses and you will be ahead of 99% of the population.

A comprehensive approach leads to the best results. Many trainees fail to take advantage of opportunities such as lifestyle optimization, stretching, and recovery techniques. It is not uncommon to see an athlete train hard, eat right, and supplement correctly, but make no progress because of an "x factor" stemming from their personal life. Some of these factors are self-inflicted while others are external, but all must be addressed. The most commons self inflected life style hard ship is the abuse of drugs and alcohol. I would advise the abuse of alcohol and drugs one hundred percent of the time if a client asked me how to fail! Drugs and alcohol create a hormonal disaster long after the hangover is gone according to my colleague Dr. Eric Serrano. These substances have a long lasting effect on performance, metabolism and recovery for weeks and even months after ingestion. I leave the decision up to you, but to maximize results, kick the back habits or they will kick your progress.

My objective for writing this article was not to simply downplay the role of supplements or complain about industry practices, but to help people understand that training, nutrition, and lifestyle factors are vital components of success. It always amazes me to see how much money people are willing to dedicate towards supplements in comparison to fitness planning services. Evaluate your own situation and decide if you need help with your comprehensive plan and by all means find that help. If need be, slow down on some supplement purchases and redirect that money to service fees charged by qualified professionals. Please contact me with questions or comments and I will match you up with an expert who can and will help you achieve your goals.

Scott H. Mendelson of www.Infinityfitness.com can be defined by the company he keeps. Scott has trained with physical preparation specialist Charles Staley for several years as a client and intern. Famous Strongman competitor and head strength coach at University Nevada Las Vegas Mark Philippi employed Scott as an intern during the summer months of 2000. Scott worked directly with the UNLV Rebels football and basketball squads on a daily basis while picking the brain of his World powerlifting champion boss.

Cognitive Hypertrophy

The fatigue that results from any type of exercise is specific. In other words, as noted by Vladimir Zatsiorsky in *Science and Practice of Strength Training* "...an athlete who is too tired to repeat the same exercise in an acceptable manner may still be able to perform another exercise to satisfaction." This concept also applies to training targets (such as maximal strength, speed strength, strength endurance, etc.)

Therefore, this month's mental exercise is to determine which of the following arrangements is most optimal in terms of fatigue management. Please send your responses to: cognitivehypertrophy@myodynamics.com. State your choice and also your rationale for that choice. Particularly good responses will appear in upcoming editions of *The Unnatural Athlete*. Good luck!

Scenario One:

Monday morning: Upper body muscle trained for maximal strength

Monday afternoon: Upper body muscle trained for speed strength

Tuesday morning: Lower body muscle trained for maximal strength

Tuesday afternoon: Lower body muscle trained for speed strength

Scenario Two:

Monday morning: Upper body muscle trained for maximal strength

Monday afternoon: Lower body muscle trained for maximal strength

Tuesday morning: Upper body muscle trained for speed strength

Tuesday afternoon: Lower body muscle trained for speed strength

Scenario Three:

Monday morning: Upper body muscle trained for maximal strength

Monday afternoon: Lower body muscle trained for speed strength

Tuesday morning: Upper body muscle trained for speed strength

Tuesday afternoon: Lower body muscle trained for maximal strength

Etc, etc....

The Mad Max Program

By John M. Berardi (www.JohnBerardi.com)

If you're a competitive athlete who is forced, by athletic necessity, to use your lower extremities to propel you toward a particular destination (i.e. end zone, soccer goal, hockey net, etc.), you've undoubtedly heard of the infamous VO2 max. You know, VO2 max, the often-misunderstood measure of oxygen consumptive capacity. VO2 max, the ever-measured but often-overestimated determinant of performance.

VO2 max, what the heck is it?

For starters, VO2 max is a measure of the body's ability to take up, transport, and utilize oxygen. Being principally aerobic organisms (yep even you weight trainers are principally aerobic), it should come as no surprise that it's important for both daily functionality and for athletic performance. In fact, its importance is underscored by decades and decades of research and thousands of research papers examining this physiological parameter (which is measured in terms of liters of Oxygen consumed per minute or, adjusted for body mass, in terms of milliliters of Oxygen consumed per kilogram of body weight per minute).

So why's this VO2 max thing so important? A few examples:

When VO2 max is moderately high, there is a large buffer zone in which energy can be generated efficiently (i.e. aerobically). When performed with low to moderate aerobic demands, activities can be carried out with much more comfort for much longer periods. The most extreme example of what it means to suffer from a low VO2 max is obvious in the elderly. Many elderly individuals have VO2 max values that are 1/4th or 1/5th of their younger counterparts. For these individuals, the activities of daily living can exceed their aerobic abilities (VO2 max) and they generate lactic acid doing things as simple as carrying groceries, walking, climbing stairs. Like when healthy individuals lift weights, granny feels the burn while walking in the garden. And that burn leads to rapid fatigue.

Obviously, on the other end of the spectrum, many elite athletes can consume oxygen at double the rates that most normal people (2x the VO2 max) and this means that with such high VO2 max values, the oxygen cost of running a 5-6 minute mile is well below the VO2 max for them. Therefore during this type of intense work, they consume oxygen, generate little lactate, and aren't forced to slump over and pray for a quick death (as I would be in trying to run a 5 minute mile).

But stop right there!

One error many individuals tend to make is to assume that since VO2 max is a measure of how much total oxygen you're equipped to consume, it must be a primary determinant of aerobic exercise performance. It isn't. In fact, while having an above average VO2 max is essential for being a good aerobic athlete, it cannot explain the difference between the winners and the also rans. The main determinant of performance is instead, something called

critical power. Critical power is the maximal intensity that an individual can maintain forever (theoretically, of course) without fatigue. If you take 2 athletes and one can run at 10mph without fatigue (but 11mph causes rapid fatigue) while another can run at 11mph without fatigue (while 12mph causes rapid fatigue), smart money is on the second guy, regardless of his VO2 max. Having a high VO2 max and a high critical power are the keys to aerobic success.

Let me clarify one thing though. Since most people associate the phrase "aerobic athlete" with distance runners or cyclists, I want to clarify that many other athletes also benefit from improved critical power and VO2 max including hockey players, soccer players, etc. Therefore a training program that can improve both parameters in a short period of time is a program that should be put in place during an athlete's base training.

Since you need a mad max and it's critical to have critical power, the question becomes "how do I get some?" Well that's what I'm here for. Recent research has revealed several effective protocols (1,2,3,4), and I'm about to present one that I use with my athletes. I call it, not surprisingly, the Mad Max program.

Endurance training of the past consisted of training at sub maximal work rates (significantly below VO2 max) for long periods of time. When training like this, VO2 max does improve however critical power does not reap the same rewards. New evidence points to high intensity interval training (at VO2 max) for increases in both max and critical power.

In order to determine the appropriate intensity for Mad Max training, I recommend the following:

1) Using an incremental exercise test, find your Vmax (maximum velocity). This can be accomplished by getting on a treadmill, setting it for anywhere between 7 and 9mph and beginning at 0% elevation. Then, with each subsequent minute, you will increase the grade by 1% until you're exhausted (i.e. you fall over). The last work rate that you can hold for at least 30 seconds before zooming off the back of the treadmill (most people zoom off between 8 and 12% elevation) is your Vmax.

2) Once Vmax is determined and the belt burns are healed, you'll return, well rested, to your nemesis (that treadmill) and perform a Tmax (maximum time) test. Basically you'll set that treadmill for Vmax (same speed and grade), and exercise to complete exhaustion (yep, more belt burn). Most athletes can stay on the treadmill at this intensity for 200-300 seconds (1,2,3).

3) *Now that you have Vmax and Tmax, you design your workout intervals by performing your exercise at Vmax for 70-75% of Tmax (1,2). For example, if your Vmax is 8mph and 10% grade and your Tmax is 200 seconds, you will perform intervals at 8mph and 10% grade for 140-150 seconds at a time (2,3).

4) Using a 1:1 or a 1:2 ratio is optimal work to rest ratio for aerobic training (4). When beginning this program, your rest periods should be 2x your work periods. Therefore if Tmax

is 140-150 seconds (2+ minutes), your rest time would be 280-300 seconds (4+ minutes). If you can use a 1:1 ratio, go for it. However, repeated efforts of this magnitude will lead to performance decrements quite rapidly.

*Since this program rapidly improves VO2 max and critical power, reevaluate your Vmax and Tmax every 4 weeks to determine your new work and interval duration.

5) So now that you have your intensity and rest to work ration prescriptions, what about volume. Typically I recommend between 6-8 repetitions. This makes for a super intense workout lasting approximately 45 – 60 minutes.

6) Finally, let's talk frequency. Since this workout is so intense, it's important not to over do it. Therefore performing 2-3 workouts of this type per week is the upper limit.

Let's sum up the Mad Max Program.

Intensity and Interval Duration:

Vmax performed at 70-75% of Tmax

Work to Rest Ratio:

1:2

Volume:

6-8 repetitions

Frequency:

2-3 times per week

So, how well does this program work? In one study by Smith and colleagues at the University of Tazmania (Australia), in just 4 short weeks, this type of training increased Vmax by 1km/hr, Tmax by 75 seconds, VO2 max by 3ml/kg*min (from an already respectable 61.3 up to 64.3ml/kg*min), and improved performance in the 3000m time trial by a whopping 17 seconds! These types of improvements are simply awesome.

If you're an athlete looking for a way to improve your aerobic capacity while training at a high level of quality, Mad Max is the way to go.

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WARNING: The Number One Reason Why You Won't Reach Your Goals

by Jonathan Edwards (www.BodyVelocity.com)

OK..we're just about to end six months past New Years and I'm wondering – How are your resolutions? Odds are they went out the window January sixth or so. By the fourteenth they were barely hanging on. And by the 21st you had all but forgotten about them.

If you are reading this I know a few things about you already: I know that you are not someone who sits back and just waits for things to happen. You are looking to learn and to change and to improve yourself and take it to the next level. But…why didn't those resolutions you set for yourself stick? If you're like me - you've had about a dozen areas of your life that you've wanted to improve on since the New Year, and the odds are that only a small amount of those changes you were looking for have stuck. The others have just slid away like egg on a new Teflon frying pan, only for you to think that you're doomed into being that "old" you that you've always been.

What the heck happened?

The truth is you didn't SEE yourself right. OK you're probably thinking, "Yo Jone! (Enter favorite tough-guy accent here) Whaddaya mean I didn't SEE myself. I taught I gaddah just go do dis stuff and ah be O.K. You know, 21 days and — poof – I'm good as new."

Here's The Deal: We Are The Lowly Vinyl Record

For those of you who are too young to remember the vinyl record, I will explain. A record was basically a piece of plastic with one continuous groove on it. Imprinted in this groove was the sound you would hear as a needle tracked its way through the groove. Sometimes, if the groove wasn't deep enough the needle would just slip all over the place causing this horrific sound through your speakers. Other times, if the record got scratched, the needle would track nicely until it hit that scratch and just get stuck playing the same two seconds of music over and over and over again.

Well our brains, my friend, are not unlike that little piece of plastic.

Change the Groove!! – Nope. Change the Whole Stinkin' Record

Let's use an example that every one can understand: A good healthy eating habit.

Notice I said "habit" and not "diet". I'm partial to the "die" analogy when it comes to dieting.

Most people, at some point in their life, try to eat healthier; and they do…for three days. Then they hit Wendy's for the Double Classic with cheese, or possibly McD's or Burger King. Either way the new habit died.

Why?

Is it because they are weak and have no will-power? Actually, it is because they are relying on will-power that they DO fail.

Can you see the difference in these two statements of a person trying to overcome a drinking problem?

"I am a recovering alcoholic"

"I don't drink alcohol"

What's the difference? The first is a definition of will-power. It defines that this person is an alcoholic at the core but is recovering from being one. Just by the definition it shows that this person can slip back…at any moment…into being an alcoholic again.

(Side Note: I'm always wondering – how do these people know when they've recovered? It's kind of like a guy with no hair on his head. How does he know when to stop washing his face?)

The second definition, however, defines Who This New Person Is.

So what, you say? Well this is the core issue with someone who is trying to develop a new habit or lifestyle, and therefore trying to reach a new goal: They have to "see" themselves as that new person in order to become that person.

The New Psycho-Cybernetics – Dr. Maxwell Maltz

If you have read this book I applaud you. If you haven't, you are totally missing the psychological boat. This is the core, the center, the base, the foundation, whatever you want to call it this is it. Psycho-Cybernetics is the basis for overcoming all of your obstacles. The book has been re-written by a world-famous copywriter named Dan Kennedy. Sometimes 'self-help" books that were written many years back seam dated and therefore we tend to dismiss their expertise as being "out of touch" with today's highly advanced World. But the job Kennedy has done has brought it up to date with recent examples and applications. Go get it!

No, this is not an ad for the book, however I highly recommend it.

In 1960 a plastic surgeon turned psychologist, Dr. Maxwell Maltz discovered that the key to making a change, any change, had everything to do with a person's "self-image." If the person did not have a true grasp on their own self-image they would be stuck, forever, in their self-image groove. Similar to the record player and the groove that plays the music.

Dr. Maltz described the self-image as a control system for you life. Basically, you will do, or not do, those things consistent with how you see yourself. Those things that are outside of

how you see yourself will be rejected by your self-image. Like a rubber-band, your self-image will snap you back into your old ways of doing things.

Specifically, all of your actions, feelings, behavior, even your abilities, are always consistent with this self-image. Note the word: always. In short, you will "act like" the sort of person you conceive yourself to be. More important. You literally cannot act otherwise, in spite of all your efforts of will power. (This is why trying to achieve something difficult with teeth gritted is a losing battle. Will power is not the answer. Self-image management is.) (Psycho-cybernetics, Prentice Hall 2002)

So if you picture your habits as the grooves in a record. And the record is your self-image; you will understand how nothing will change until you change the whole record so that you can play a new song with ease.

So many Elite athletes, as well as every day people, sabotage themselves by not seeing themselves as that new person they want to be, all they do is focus on the "habits" they have to acquire.

You Have To Act "As if"

My sports psychologist Dr. Jerry Lynch has written a number of books. You can find them through Human Kinetics or contact him at taosports@aol.com. The first book of his that I ever read was called Thinking Body, Dancing Mind and it blew me away. I called Jerry and we began a three-year relationship that took me to one of the peaks in my athletic career. Jerry has worked with many elite athletes and coaches including Phil Jackson of the Chicago Bulls and the Los Angeles Lakers. Jerry taught me this fantastic tactic for reaching the next level in mental and physical performance: "You have to act as if you are already that person you wish to become."

Here are two examples I hope will apply to you. If you need help on applying self-image training to your own life please send me an email and I can send you a letter about my services: self-image@bodyvelocity.com:

Nutrition: Making better food Choices

Habit Training Attitude: In order to lose body fat all I have to do is make a "to-do" list of the right foods to eat, when to eat them, and in what sequence.

Self-Image Training: See yourself as someone who eats healthy foods and lives the lifestyle that creates a leaner physique. Anything outside of that self-image will be rejected by your new self-image and making proper food choices will be an easy decision.

Performance: Reaching a New Goal

Habit Training Attitude: If I follow the steps of my new training program I will automatically make progress.

Self-Image Training: See yourself with the body, and the mind set to reach that new goal. If you want to squat 600 pounds "see" yourself with the increased mass on your legs to do it. See the stronger core and the intensity to make it happen. Visualize the lifestyle that you have to lead in order to reach that goal. Once you see yourself as someone who can lift 600 pounds you will readily accept all of those habits that support that vision. All other non-supporting habits will be rejected. If you can't see yourself squatting 600 pounds it ain't gonna happen!

Go Out And Make A New Record

Don't just focus on the groove (habit); focus on the record (self-image). You should take some time, every day, to train the self-image.

Take this story from Psycho-cybernetics:

A Boston psychologist now coaching pro golfers, profiled in Golf Magazine, Dr. Gloria Spitalny, says: "By my calculations, the average golfer spends 86% of their time doing nothing but wrestling with their thoughts and emotions, feeling one way or another about what is taking place, feeling exhilaration or anger, struggling to keep focused, worrying about what's happened or what is up ahead." It only stands to reason that if 86% of the time spent playing the game is dominated by thought and emotion, not physical action, that 86% of the success/failure determination is due to management of thoughts and emotions, not swing mechanics or putting prowess. This same thing is true in every athletic activity, so more and more coaches are devoting more and more time and energy to mental preparation and psychological motivation.

Dr. Jerry Lynch recommends writing down, on 3x5 index cards, statements that reinforce the person you need to be in order to reach your goals... (He even does it for his own writing, the type of father he wants to be, the husband he aspires to be.) You can do it for any activity. Read them at night before you go to sleep and in the morning right when you wake up. Take some five minutes just to think about these statements and to visualize yourself applying this new self-image. Reinforce that new self image. And as Dr. Maxwell Maltz says:

"Numerous experiments have shown that, once the concept of self is changed, other things consistent with the new concept of self are accomplished easily and without strain"

Conclusion: I am an athlete and my fiancée is an accountant. She looks at me and thinks I'm crazy for trying to squat 450 pounds. I look at her and think she's crazy because she sits in front of spreadsheets all day on her computer. If I wanted to make a change and become an accountant I would quickly go nuts trying to focus on all of the "to-do's" of being an accountant. The athlete in me would be fighting, constantly, with the foreign lifestyle of the accountant's world. Sure I could fight through the misery and hope that, eventually, my mind

would just accept this new environment by just doing the things accountants do every day. But until I had gotten rid of my athletes perspective, and adopted the new "mind-set" of the accountant I would constantly be struggling. Only when I implanted that new "self-image" – I am an accountant. This is who I am. This is what I do – all of the accountant tasks would become easy.

I hope this helps and that you can apply what you have learned into any sticking points you may have in your life. If you've got any comments on this article or ideas for future articles, I'd love to hear from you. You can shoot me an email: jone@bodyvelocity.com

Jonathan Edwards is an Olympian, and All-American, and a Performance Enhancement Specialist consulting with a number of athletes, and their parents, on the best approach to the progression of all aspects of their athletic careers. He lives in Calgary with his fiancée Michelle and can be contacted by email: jone@bodyvelocity.com.

"That Just Ain't Natural!" with Charles Staley

Most of us accept the idea that one's training should be of high quality if it is to be effective, but what is quality? Many coaches and trainers advice that a set be terminated when form begins to break down (or perhaps slightly before). It has also been suggested that a training unit be discontinued when at least 90% of the desired number of reps cannot be properly performed for any given set (for example, one performs sets of 8 reps with a standard load until at least 7 reps cannot be performed). However, is there a better way to manage training? Here's how I look at the issue:

1) Every time you touch a weight there is presumably (but not always) a benefit, but there is ALWAYS a cost.

2) Therefore, from the standpoint of effectiveness, one tries to optimize the benefit/cost ratio.

3) To maximize benefit (training effect), one attempts to ensure that all training elements are performed at a high level of quality. The cutoff between acceptable and unacceptable may be somewhat arbitrary, however, let's use 90% for the sake of this discussion.

4) If you are performing a certain movement (e.g., squat) at maximum speed (for any given set of loading parameters), then we can call this 100% quality for that movement.

5) When the speed of that movement is slowed by 10% or more, the quality becomes unacceptable from a benefit/cost perspective and the movement is discontinued. For example, from a strength/speed/power standpoint, if you do a set of say 10 reps, for every rep you do, the benefit becomes less and less, and the cost becomes more and more.

6) If (over the course of a set or a workout) the movement structure is altered due to fatigue (or possible other factors), then it is no longer the same movement! This is why judging quality by how many reps one can do or by the ability to maintain good form is incorrect-

speed declines long before form breaks down or before one can no longer stay within a prescribed repetition bracket.

7) This system should automatically prevent (or at least significant decrease the chance of) overtraining, because the most direct measure of CAR (current adaptational reserve) is one's ability to perform (as opposed to indirect measures such as heart rate, sleep quality, etc.). Therefore, if an athlete goes into the gym and is slow from the first set, the "system" imposes a light day (or even a day off). On the other hand, if one can perform 35 sets and still stay above 90% quality, so be it.

In future issues of *The Unnatural Athlete*, I'll flesh out this concept more thoroughly. Now on to your questions...

Charles, thanks again on your advice on speed strength training and your input on increasing my absolute strength. However, I have two questions for you that I hope you do not mind answering. First of all, pursuant to your articles' recommendations, I have incorporated sprinting into my speed strength regimen. On June 23, 2001, I injured a muscle(s) located in the back of the left part of my left leg, extending from my buttock to my knee. It doesn't feel like a hamstring injury, as I've had those in the past. I had iced it immediately, and it feels better today on June 26, 2001, as I can walk and not feel pain. It progressively seems to keep improving, even though I am limited in the types of kicks I can complete right now, without pain in the area. My father, an anesthesiologist, recommends limiting activity as much as possible. But is there another proactive means of healing this injury?

Yes and no...limit activity that causes pain and/or inflammation, or activity which slows healing, however, increase activity that speeds healing. This does sound like a hamstring injury according to your description. That being the case, I'd suggest performing high-repetition (2-3 sets of 20-50 reps) leg curls in a pool (these can be done in a standing position), using a speed that does not cause pain during or after the performance. The idea behind this suggestion is that the high repetition work will bring increased blood flow to the injured muscle(s), thus speeding the healing process. Perform these leg curls three times a week, and be cautious the first few times— you don't want what I call "an aftermath," meaning, increased pain and/or impairment a day or two later.

In addition to the high rep work described above, I'd also strongly suggest that you have a skilled soft tissue therapist work through that muscle to reduce the severity of scarred tissue as a result of the injury. Often, as soft tissue heals, it doesn't quite manage to return to pre-injury condition. Instead, you may end up with a region of adhesed or scarred tissue. This region of muscle is no longer contractile tissue per se, and it's borders can be more susceptible to further injury (kind of like a tear in a pair of pants that gradually becomes worse and worse with every wearing). However, if the injury is not too severe, and if it's not too old, then massage therapy can coax this scarred region of tissue back toward more normal functioning.

My second question is pertaining to a static flexibility issue. I have been doing dynamic stretches prior to static ones now for about one year and have yet to achieve a full side split. I've read Tom Kurz' book Stretching Scientifically, which tremendously helped improve my overall flexibility, but I'm still about 6 inches away from a full side split, as I have done isometric stretches for the side split 3-4 times per week after my workouts. Any suggestions, on how to get all the way down?!

First, let's consider if you're asking the correct question! Is your desire to achieve a split for the sake of doing a split, or for the sake of better kicks? If the answer is better kicks, you already have sufficient flexibility for that objective. Many of the best kickers I have ever witnessed have never attained a full split.

If for some reason you simply want to achieve a full side split for it's own sake, there are a few things to consider:

1) You may not have a pelvic structure that will permit the full side split. There is no way to tell whether or not this is the case, unless you finally manage a split, which of course indicates that you do indeed have the necessary pelvic structure.

2) You should perform a variety of flexibility methods, not just isometric. Use some contract/relax stretches, active-isolated, and so on. In the same way that strength training is best accomplished through a variety of methods, so is flexibility training.

3) Soft tissue therapy: Sometimes, it's not healthy muscle but unhealthy muscle (as discussed above) that prevents realization of full muscle length.

Summarizing the above points, when you use "neural" methods of stretching, you're eliminating or at least minimizing the neural contribution to joint restriction. Then, if you employ expertly-applied soft tissue therapy, you're also minimizing contribution from damaged tissue. After this, the only remaining factor should be bone structure.

Hello Charles, since the last time we've e-mailed each other my wife gave birth to our son, Aidan Alexander on June 5th. What an experience! He's three weeks old today. Man how they grow. Anyway, I had a few questions regarding my training program.

1) I've been following a split similar to the Westside Barbell method with one Max effort day for upper body and legs and one dynamic effort day as for each as well. Do you think this is an effective split for my goals of increased strength and muscle mass.

Generally speaking (and knowing your busy schedule as I do), yes.

2) I'm trying to determine where I should put my sprint training during my week. Since I'm technically in the "off-season" from my track meets my main focus is the get bigger and stronger than I've ever been in my life!
However I feel I shouldn't stop sprinting all together as that's my primary sport. What are your thoughts on this matter?

I agree— the biggest mistake that people make is bringing a skill or quality to a high level through lots of hard work, and then allowing it to disappear while working on another quality or trait. I call this "horizontal summation" of training factors. In other words, work on quality "A" for 6 weeks, then quality "B" for 6 weeks, and so on. Problem, is, by the time you're toward the end of your "B" phase, "A" has all but disappeared! Instead, use a "diagonal" summation strategy where all components are always being trained, but where the emphasis changes depending on where you're at in your macrocycle. Put another way, quality "A" is put on a maintenance phase as quality "B" is on a development phase. I'd recommend sprinting on the same day as the lower body dynamic effect workout if possible. Once a week should be sufficient.

3) I've switched my back squat from an Olympic style as you recommended to more of a powerlifting style. In fact I've been experimenting with box squats and was surprised to actually squat less than I could with a full Olympic style squat. I must very quad-dominant because I can't use as much weight with the new style. I'm going to keep the new powerlifitng squat style just for variation and hope that I get stronger at it.

Yes, I suspect you were in fact quad-dominant (perhaps not as a genetic factor but simply the result of your training habits). So perhaps we've found a weak link for you, and if that's the case, progress is right around the corner. Incidentally, quads are highly over-rated for most sports, including sprinting!

4) I'm also very interested in using the bands and chains that Louis Simmons and Dave Tate write about. What do you think would be the best way to start using those keeping in mind my sprinting goals? Perhaps ordering their videos would be helpful. Have you seen them?

Yes. They are effective from the standpoint of being able to fully understand the Westside system and what their workouts look like. I believe the tapes can be purchased at http://www.elitefitness.com. I would use the chains and bands as outlined in the Westside system as a starting point.

Charles, isn't it necessary to find out a client's one rep max fairly early on so you can keep them within the 55-85% range? Do you recommend this within the first week? I very much enjoyed the Phoenix seminar. Thanks for everything.

It's not necessary or even advisable to do 1RM testing with beginners. A novice will not even have the requisite skills to perform the exercises properly— therefore, there is no way that the exercise can be tested for maximal strength. Instead, just keep plenty of reps in reserve with beginners. Foe example, perform 6 reps where 12 are possible. Later, as skills and conditioning levels improve, perhaps 6 reps where 10 are possible, and so on.

— Charles

Tactical Training For The Combat Athlete with Tim Larkin

Ten Tips To Make You A Better Fighter

Thanks for all the positive response to my first article in last months *The Unnatural Athlete*. Per your requests I'm following up with some practical, straightforward fighting tips you can implement in your free fight training . When I train clients in my *Hand2WeaponTM* close combat fighting system I consistently observe some common mistakes that really hinder your ability to quickly dominate a situation.

Some of the mistakes are psychological, others technical. Either can get you knocked out, maimed, or killed in a life and death fight. Being conscience of what you actually do in training allows you to correct any mistakes in a forgiving environment rather than on the street.

If you make it a regular practice to train for the life and death scenarios then handling the drunk at the nightclub becomes very easy to deal with, often avoidable. So with that in mind here are 10 tips to make you a far more lethal fighter, they are in no particular order:

1. Never get in a "fighting position" to intimidate before you strike in an attack. This is probably the biggest waste of time and the surest way to get hit. You may have just one move to take out your opponent and you just spent it getting into position. Better to see your target and just strike.

2. If you grab someone by the hair make sure you comb the hair with your fingers then grab. This avoids the often comical scene where you attempt to reach out and grab the hair and end up with a fist full of air.

3. Striking with a straight spine delivers far more power than with a bent back. Make sure you're not bending your back in training by occasionally pausing after a strike and simply look down at your feet. If your head is past your knees then you are bending your back.

4. When an attacker has a weapon never look at the weapon. Instead focus on the body part that initiates the weapons movement. Example: If the knife is in the hand, then start by looking at the elbow, then his shoulder. If you really want advanced warning then look at the opposite shoulder, it must move to move the striking hand. It is subtle but you can see it with a little practice.

5. If you are getting kicked and you seem to be late all the time, try dropping down into a deep balance position. This places your eye at the optimum point so it can see the kick coming long before it becomes a threat. With practice your head will be level the attacker's diaphragm or belt level.

6. If the attacker punches or kicks first don't block, strike! The movements may look similar but a strike renders the attacker off balance, creates a chaotic state, or knocks out the attacker. If one of the 3 don't occur you did not strike.

7. One of the biggest problem you'll face with a real fight is that you will get out of breath that causes fatigue and fatigue gets you hurt. Many fighters actually hold their breath during a free fight that can rapidly fatigue you. Check that you are breathing during free fight give and take and make sure you incorporate regular muscle endurance conditioning cycles.

8. Here's great way to insure you are delivering the most power into your strikes: When striking a target be sure your front foot is past or at least equal to the attackers feet. Your center mass should replace that of the attacker's every time a strike is made.

9. When fighting or training do not head-butt. Never use your own central nervous system as a striking platform. Head-butting takes eyes in and out of focus which is definitely what you don't want in a conflict.

10. Remember to stay relaxed when someone grabs you. Do not provide a grappling friendly structure for the attacker. If you stay relaxed it's next to impossible for someone to hold and manipulate you.

Well there they are, try to incorporate one or all of these tips in the next month and let me know how it works for you. You can email me at hand2weapon@hotmail.com .

Tim Larkin is a Master Trainer in Hand2WeaponTM, with over 20 years experience in the martial arts and military hand to hand close in combat training. Formerly a master instructor with the SCARS Institute, Tim has provided hand to weapon instruction for members of some of the most elite units in the special operations arena including US Army's Delta Force, US Navy's Development Group (Formerly SEAL Team Six), USMC Force Recon, US Army Special Forces, USAF Combat Control Teams and the FBI's Hostage Rescue Team. Mr. Larkin is a consultant for various training companies and offers a limited number of seminars in his Hand2WeaponTM system to the general public at his training center in Las Vegas, NV. For information on these seminars call toll free 888-285-6192 for a 24 hour recorded message

2x+1 With Jeff Smith

MOAs (Major Outcome Activities)™

MOAs or Major Outcome Activities are those activities that have the largest impact on being able to experience your Major Outcome. For Major Outcomes related to income, your MOAs are those activities which earn you the highest number of dollars per hour.

Key Points:

• Not everything you do is equally important.

• Some activities result in 5 or 10 times more benefit per hour of effort.

• The key to large income increases is to identify the most profitable MOAs for you and focus on replacing hours you now spend doing something other than MOAs with hours invested in doing only MOAs.

The Shift To Make:

• Realize that because some things you do are 5 or 10 times as productive as everything else, you can make huge increases in your success level by focusing on those things— your MOAs— rather than everything else you're now doing.

• If your MOAs are worth (for example) $100 per hour, making the small shift of replacing one hour each day that you're not now doing an MOA with one hour you are doing an MOA will increase your income $500 per week, which will put an extra $25,000 in your pocket in the next 12 months, just from this one small shift.

• Important: Every time you do an activity that is not an MOA, it costs you money, time, and/or effort.

For example, if you're doing an activity that's worth $10 per hour and your MOAs are worth $100 per hour, it's clear that it costs you $90 ($100-$10) in lost revenue for every hour you do that activity instead of your MOA. Multiply this out for a year and determine how incredibly expensive it is to continue doing activities that are not MOAs.

How To Make The Shift:

• List everything you do in a week.

• Assign a dollar per hour value to it based on how much you make when you do it or how much you could pay someone else to do it for you.

• Choose the 3 activities that make you the most money per hour— these are your MOAs.

• Begin replacing activities that you now do that are not MOAs with activities that are MOAs.

Here are a few examples of the potential MOA's for different types of goals:

• Sales goals: contacting 20 prospects by phone, setting 5 appointments, closing one sale, practicing your presentation for one hour, or mailing 500 lead generation letters

• Entrepreneurial goals: writing a letter to new potential joint venture partners, investing two hours in training your employees, or developing a system which saves you 5 hours per week by helping you run your business more efficiently

• Athletic goals: running 5 miles, shooting 100 free throws, making 100 putts, hitting 100 pitches, or investing one hour in lifting weights.

• Health goals: eating less than 20% of your calories from fat, eating less than 3000 calories, eating at least 5 servings of fruit or vegetables, or working out for at least 30 minutes.

Notice a couple things about these examples:

• They are simple.

• They are tasks that move you toward your goal in the quickest manner possible.

• They are specific and measurable.

You are looking for the few critical areas that will vault you toward your goal. Usually these areas are very easy to understand and accomplish.

A golfer knows if he sinks 100 putts per day, he will lower his overall score. A salesperson knows if he contacts 20 prospects a day, he will make more sales.

The key thing here is that they are tasks that will move you toward your goal in the quickest possible manner. It's likely that you may realize three things when you are thinking about the critical tasks for achieving your goal:

Your MOAs may or may not be what you do well.

Don't be afraid to admit that what you do well may not be the most important thing for you to do. You could be the best phone salesperson in the world but that won't help you much if your goal is to win the Nobel Prize in physics.

That's OK. Focus on what you need to do, NOT what you do well, and your progress will be FAR easier and faster.

Your MOAs may or may not be what you usually do.

You may be used to going out and selling all day, but if you want to build a million-dollar income, you may find that sitting in the library creating new marketing campaigns is a far more profitable use of your time. A realization like this will require doing some things that you aren't used to doing and that you may not initially be that good at. Do them anyway. You overcome fear by action. You build skills with action. You grow through action. And you achieve success with massive RIGHT action.

Your MOAs must be specific and measurable.

You must be able to tell if and when you have completed your daily tasks.

It does you no good to say, "I will contact some prospects today." Does "contacting prospects" mean contacting 5 or 500? And does it mean calling them, sitting in front of them, or writing them a letter? Who knows…

Make sure that the MOAs you select are both specific and measurable, so at the end of each day, you IMMEDIATELY know whether or not you've completed them to the level that you need to complete them to achieve success.

DURING THE PAST 11 YEARS, Jeff Smith has developed an international reputation for helping entrepreneurs multiply their profits in very short periods of time with his proprietary "2X+1 Lifetime Profits Process" which almost instantly converts your current clients into a lifetime stream of profits for you and your company.

Smith has personally coached more than 1000 CEOs, business owners, sales professionals, and doctors across North America, Canada, England, and Australia to help them create the business and lifestyle of their dreams.

A frequent guest on radio and TV talk shows nationwide, Smith is also the creator of the Stress-Free Success System, The 2X+1 Mastermind Coaching Program, as well as the author of Stress-Free Success, Focus On Your Dream, and numerous other books, manuals, and special reports.
Top entrepreneurs and sales organizations from around the world currently hire him to speak at their functions, as well as for private consultations to help them devise new marketing and business growth strategies, integrate their business with their personal life, and lead a healthy, balanced, stress-free lifestyle.

Jeff is available for keynote addresses, private consultations, marketing consulting, ongoing group and leadership coaching, as well as teleconferences, live workshops, and seminars.

He can be reached directly by emailing him at stressfree@lvcm.com or writing to him at Jeff Smith, Center For Personal Excellence, 1001 Eaglewood Dr., Las Vegas, NV 89144

Interview: Soft Tissue Therapist Simone Fortier

by Josh Henkin

In the past decade the use of soft-tissue treatments has gained a lot of popularity in popular strength training circles. The uses of such treatments are numerous, from aiding in recovery, manually removing scar tissue, and decreasing pain. However, just as it is difficult to find a quality strength training specialist, it can be equally challenging to find a highly skilled soft-tissue specialist. I have had the fortunate opportunity both to work with and receive treatment from such a professional. Simone Fortier has provided me valuable insight into my own training and that of my clients. This has led to increased performance and the overcoming of many plateaus. I am very happy that Simone has agreed to provide some insight into her philosophy of treatment.

JH: Simone, can you explain a little your approach to soft-tissue treatment?

SF: My approach is result and solution orientated. The treatment is designed to meet the needs of the client based on their specific injuries or goals presented in my office. These specific needs and objectives has been a driving force for me to learn, be innovative and creative. I have learned how to adapt, meld and develop a unique form of muscle therapy derived from many different modalities, including, soft-tissue manipulation, NLP, myofascial release, cranial sacral, visceral work, movement therapy, stretching, deep tissue myotherapy, and structural integration. My therapy is to be called Manual Re-integration Therapy.

JH: A variety of treatments have been receiving a lot of attention in popular media. Probably the most popular being Active Release Techniques (ART). How does your treatment differ from ART?

SF: My treatment differs from ART in many aspects. On in particular is : Instead of manually moving the body through a range of motion, which requires a lot of physical strength from the therapist. I listen to the tissues and follow the movement of the body while incorporating trigger points or stripping the muscle fibers.

JH: What do you mean "you can listen to the tissues"?

SF: Through years of experience and specific muscle energy techniques, there is a natural flow or unwinding of the tissues that needs to occur for healing to take place. My philosophy incorporates the understanding that energy (trauma) goes into the body at a specific angle and in order to release that trauma the body must go through the same movement at the same angle. This type of movement needs to be facilitated.

JH: What advantages do you think your treatment philosophy has over someone who may have a very regimented approach to treatment?

SF: This type of treatment allows the client and the client's body to be active and responsible for their own healing during therapy. The body knows what it needs to heal itself. I am introducing tools to facilitate the body's own internal doctor, in order to produce true change that is lasting. Also, if I am regimented in therapy I maybe so focused in one direction I may miss the cause of the problem and address only the symptoms.

JH: Well, how important is it for a therapist to have a variety of techniques available to them?

SF: The more techniques I have allows me to adapt and create a muscle therapy program to meet the specific needs of each client. If I am knowledgeable in only one form of therapy I will be limited in my ability to help my clients.

JH: Do you know what technique you will use before you treat a person?

SF: After completing an intake form and getting a history of injury or injuries, I have a general idea of what treatment is required. But, the body is dynamic it is always in motion, so I must be able to adapt to current needs and issues. For example, one of my athletes sprained her ankle during her warm up and could not compete, I treated the ankle until it resumed normal functioning which was with in one week. Her treatment for her knee and hip continued after the resolution of the immediate injury. Another example of adjusting techniques occurs when additional history is revealed during treatment or an acute injury has occurred for example:being able to treat post concussion syndrome with cranial sacral work while addressing other muscular issues with myofascial release or trigger point therapy. I would also like to mention again that the root cause of injury may be an imbalance located somewhere else, part of my role as a therapist is to investigate and utilize whatever techiques are required until a solution has been established or consult with other professionals.

JH: Do you think your treatment can assist in improving athletic performance and/or cosmetic goals?

SF: The answer to both questions is yes. There are several different techniques I use for cosmetic gains. One I have discovered for cellulite reduction is a technique I use to release the connective tissue of the legs and glutes. It increases circulation and breaks up adhesions where fluid can be easily retained.

For athletic performance my treatment creates space in the tissues which inevitably increases range of motion and flexibility. Also, I have a technique for recovery which decreases recovery time after training.

JH: In the past few years many strength coaches have been practicing soft-tissue treatments themselves. Do you think this is a positive or negative trend?

SF: Personally, I feel they can release tension during a workout. Also, because of their assumed knowledge of anatomy and physiology it may be appropriate to stretch their clients during a training session. My specialty is soft-tissue therapy. Although,I am totally capable of taking a client through a program of weight training, it is not my expertise. I feel it would be doing a disservice to the clients as it is not my main focus. Also, I have extensive training in muscle therapy and limited training in being a strength coach. Although I have taken the coaching certification program and a personal training program, by taking these programs does not automatically make me a genius in training. I am not researching material on the latest speed drills, power lifts etc, I continually upgrade and seek out new information in my specialized field of rehabilitation of muscular injuries.

JH: Do you ever work in conjunction with strength coaches?

SF: Yes, I do. I enjoy working and exchanging ideas of how to enhance the performance of an athlete or facilitate the healing of injuries. I often watch my clients while they train, as it gives me a lot of information I may not have the opportunity to view while they are in my office. I get the opportunity to see how their muscles function while they are under a load and

when they fatigue. This collaboration of expertise and exchange of information is invaluable for the client.

JH: What would you say to someone who is in training, but doesn't know if they need any treatment?

SF: First, I would ask what their goals are in training. I would inquire if they are experiencing a plateau in their training, any discomfort or stiffness. I would ask the strength coach also if they have experienced any restrictions in any particular movements. If there is a yes to any of these questions therapy is indicated. Personally, I believe that muscle therapy is a requirement for anyone who is training. Often times individuals are not aware of what is happening to their own body. I strongly believe in prevention of injuries, so the best time to start treatment is before you feel a physical pain. Muscle therapy aids in recovery, maintains muscle tone, increases circulation, elasticizes scar tissue, and maintains your range of motion. Who wouldn't want treatment with all those benefits?

JH: Simone, thank you for taking the time to give some insight into your treatment and the field of soft-tissue therapy. If someone has any questions can they contact you?

SF: Sure, my email address is simonefortier@aol.com or call 602-615-7870 or 619-248-1129.

Cognitive Hypertrophy

When a muscle increases in size, it also increases in strength. Compare the following two sets of loading parameters:

Example One: 5 sets of 8 repetitions with 225 pounds. Volume = 9000 pounds. Duration of workout: 30 minutes

Example Two: 10 sets of 4 repetitions with 225 pounds. Volume = 9000 pounds. Duration of workout: 30 minutes

Both workouts are identical with respect to intensity, volume, and duration. therefore, they should lead to exactly the same increases in muscle size.

Question: Is all muscle created equal? Please send your responses to: mentalexercise@myodynamics.com. Particularly good responses will appear in upcoming editions of The Unnatural Athete. Good luck!

The Truth is in the Details

The theme for this month's newsletter involves the importance of attending to the details of your training and nutritional program. Paradoxically, the details seem insignificant in the short term, but over the long term, they have a huge bearing on the results. For example, squatting with slightly mis-aligned knees has no apparent negative consequences over the

short term (weeks and months). But over the long term, you risk debilitating injuries that will effectively end your training career. Similarly, ignoring slight muscular injuries (pulls and spasms) seems inconsequential over the short term, but over time, these microtraumas result in scar tissue which not only reduces your strength levels, but also increases the chances of further soft tissue injury. So with this in mind please enjoy this month's thought-provoking contributions from our team of experts

As for my part, I'll tackle a few questions regarding workout design:

Q: I would like to know if you could address a problem I've been having with planning an extended periodization cycle. I've read from both you and Pavel Tsatsouline that there is definite reason to use heavy weights coupled with numerous sets(10+ per bodypart) for hypertrophy of the contractile proteins as opposed to sarcoplasmic growth only. Recently, I've bought Tudor Bompa's 'Serious Strength Training,' to learn how to integrate the use of periodization into my bodybuilding program. As a natural athlete, I'm looking for every training and nutritional advantage possible.

Dr. Bompa has days factored in that are "less than failure" training days in his hypertrophy and maximum strength phases already. I'm trying to figure out how to orchestrate the transition from one phase to another. For example, a six week hypertrophy (H) cycle will begin with poundages around 70% 1RM and move to about 85% 1RM with days of sub-failure training already factored in. From here I was wondering if I could/should use Pavel's suggestion of 10 sets of 5 (none but perhaps the last set taken to failure) per bodypart for creating muscle density and lasting growth as well as functional strength during the second cycle?

Overall I thought perhaps undulating between:

6 weeks (Hypertrophy per Bompa) --->6 weeks (Pavel style) ---> 3 weeks (Max strength w/failure per Bompa)

A: If you want to achieve hypertrophy, then simply do as much work as possible during your workouts, and then support it with good nutrition, and make sure you are able to gradually do more and more work on each successive workout. Let me explain:

A muscle cell has a finite amount of energy at any given time. That energy is apportioned to two different tasks— mechanical work, and metabolism. At rest, the energy is fairly evenly divided between these two needs. however, when at work, most of the energy is directed toward mechanical work, which leave very little available for metabolism. Now, by "metabolism," I mean protein synthesis and resynthesis. At any given moment, your muscles are involved in an endless cycle of protein degradation (from training and other sources or mechanical work), and build-up (your body's attempt to "repair" the muscle cells after they have been torn down from heavy work).

Now, here's the interesting part— after a hard bout of work, your muscles are temporarily left with less proteins than they had immediately prior to the work bout. Your body's

response to this is to bring in more proteins to replace what was lost. Now, here's what's REALLY interesting— your body will not only replace the lost proteins, but it will also deposit extra proteins, just in case a similar incident should occur in the future. The end result? You now have slightly more muscle than you use to have.

All of the preceding means that the hypertrophy response is simply based on how much work you do per unit of time, with a few caveats:

1) The work must be of sufficient intensity— probably above about 70 or 75 percent of maximum

2) You must be able to recover from your workouts. Inadequate nutrition and rest (just to name two factors) will hamper your body's attempts to repair itself.

Therefore, let's focus on the basics and give the obscurities a rest to regain our focus. Simply create your workouts in such a way that you can do as much work as possible during every session. A few suggestions might include:

1) Minimize redundancy: If, during a single workout, you decide upon 2-3 exercises for a single muscle, make the exercises as dissimilar as possible. As an example, if you perform 2 biceps exercises in the same workout, don't use standing barbell curls and standing EZ-bar curls— the two movements are almost identical save for the slight variation in hand position.

Instead, a better choice might be single-arm 45-degree dumbbell incline curls and straight bar preacher curls. Now we have effectively reduced redundancy to a bare minimum. The first exercise selectively recruits the biceps long head while the second exercise targets the short head. The first exercise is unilateral while the second is bilateral— different neural patterns are involved. The first exercise uses dumbbells while the second uses a barbell— again different neural pathways as well as recruitment of stabilizing muscles. Really, the only thing these two exercises have in common is that they target the same muscle.

2) Use a non-standard rest interval. When hypertrophy is the training target, I rarely use standard rest intervals. Since fatigue accumulates from set to set, it is much more efficient (in my mind, anyway) to use shorter rests between early sets, and more rest between later sets. One way I accomplish this is to inform the client that all sets must be performed in a fixed time frame (e.g., 5 sets in 20 minutes). In this way, the client will self-regulate his or her rest intervals, taking minimal rest between early sets to get a "head start."

3) Use Antagonistic Pairings: Train muscle groups in antagonistic pairs, for example:

- Lats & Pecs
- Biceps & Triceps
- Quads & Hamstrings

or...

• Lats & Triceps
• Pecs & Biceps

There are several advantages of this method:

• Sherrington's Law of Reciprocal Inhibition states that as the agonist is working, the antagonist must relax in order to permit the movement. Therefore, as you perform biceps curls for example, the triceps is forced to quiet down and relax. In other words, you are forcing a faster inter-set recovery.

• If you perform 5 sets of biceps curls one after the other using 2 minutes of rest between each set, you obviously get 2 minutes of rest between each set. However, if you perform a set of curls, then rest 2 minutes, then perform a set of triceps extensions, rest 2 minutes, etc., then you now achieve more than 4 minutes of rest between 2 sets of the same exercise, even though the total workout duration remains the same, if not even less.

• Training muscles in antagonistic pairs ensures equal strength development around both sides of the joint.

• In the preceding example, as you perform your biceps curls, you are keeping the involved joint warm for your next set of triceps extensions.

Q: First, I would like to say that I really enjoy your website. I have integrated many of your training principles and exercises into my training,
with much success.

This may be a stupid question, but I must ask it anyway as I would like to get a full and complete understanding. It is regarding repetitions. I vary my rep schemes almost every workout. Sometimes I'll do ascending strip sets, sometimes I'll do simple 8-10 rep sets, sometimes I'll do low rep sets....you get the point. I'm often asked why I change my rep scheme so often— that answer is obvious.

A: Just in case it's not obvious to some, let me elaborate on the importance of variation in training if I may:

One of the more paradoxical facts about training is that specificity must be balanced against variability within the context of a sound training program. In other words, specificity is necessary, but too much of it is just as much of a problem as not having enough!

Here's why:

1) The effectiveness of any program is a function of the degree to which it challenges your body. The problem is that familiar stressors are less challenging, because the body habituates (habituation is the gradual reduction of a response when an initially new stimulus is repeated over and over) to them. Every time you repeat a training program, it becomes less effective.

2) All programs, techniques, methods, and paradigms have both negative and positive aspects, no matter how well designed or specific. Too much time on one program, and you'll have a tendency to habituate to the positive aspects and accumulate the negative ones. For example, the athlete who performs barbell bench presses every week may develop an imbalance between the front and rear deltoid muscles, despite the fact that he or she is not getting stronger on the exercise.

3) Unchanging training routines lead to overuse injuries. According to Dr. Sal Arria, Executive Director for the International Sports Sciences Association, "Adopting long-term training habits of any kind is very often a precursor to degenerative changes in the joints. Advanced athletes are particularly vulnerable, since their training tends to become more and more specific over time."

Deane Juhan, in his insightful text Job's Body, observes: "Let us be on our guard against adopting any particular posture, mode of exercise, or repetitive discipline as being perfect, or ideal, or best. Only constant variation calls the full alertness of the system into being. It is, after all, constant variation that we are called upon to cope with throughout our lives, a condition from which we can only partially insulate ourselves no matter how hard we may try to cling to models, and no matter how "right" those models appear to be from a particular theoretical point of view."

4) Exercises should be selected to solve problems or to accomplish specific tasks, NOT for the sake of filling time in your workout! So, for example, if you have developed an assumption that your back squat has stalled because you have weak quads, you might select an exercise to target that weakness (step-ups, for example). However, once that weakness has been rectified, it is no longer a weakness! Now, perhaps your low back is the weakest muscle with respect to your squat. This suggests changing your exercise menu to reflect this reality.

For these four. reasons, it's crucial to regularly change various aspects of training—everything from the frequency of sessions to their content. In my own practice (which tends to be limited to athletes for the most part), about 33% of exercises tend to remain constant (although the set/rep parameters will change every four weeks), where the remaining 66% of the exercise menu will change every four to six weeks. Set/rep schemes also change every four to six weeks as well.

But the question that I have trouble answering is the 'I thought that high reps were for definition and low reps were for mass' question.

Is there an article (or book) you can point me too that will help me
understand the relationship between workloads and repetitions, and their effect on different muscle types?

A: Please see my earlier response regarding the requirements for hypertrophy. As for definition, this is simply a question of energy balance and bodyfat deposition. Therefore, any style of training that contributes to increased muscle and/or energy expenditure will improve definition! So, the high reps versus low reps myth is exactly that. It is total work that

determines the strength and character of the training effect, NOT an isolated parameter such as number of reps per set, or what exercises you perform. Hope this helps to clear things up. If you find yourself even more confused, keep the following in mind:

1) Mastery is a path, not a destination. If you ever get there, it simply means that you are deluding yourself! Mastery also requires a tolerance for "not knowing." In seminars, I often assure everyone that I have just as many questions as anyone else (although perhaps on a different level). Once you form a conclusion, you've stopped your inquiry, which means that you've stopped learning. If you have lots of questions, it means you're a seeker, not a beginner.

2) There is always more than one way to skin a cat. There are many paths that can and do work. So don't think in terms of searching for THE way, because it doesn't exist! There are at least two distinct reasons why there is no such thing as a perfect training program (or device, method, etc):

• Everyone is different with respect to genetics, health status, training background, objectives, and access to equipment, time, and energy. Different situations calls for different approaches. Further, every person is continuously changing, and therefore will require different approaches over the course of time.

• Even if you found the "perfect" way, over time, your body would habituate to it and you'd stop making progress.

3) Many books and magazine articles are over-generalized. When an author writes a training program in a magazine article, he or she knows that it can't possibly apply to all readers. So, the only way to present a program is to generalize it for the "average" reader. This may or may not mean you.

4) If something is working, keep using it until you have convincing evidence that there is a better way. Common sense can be a valuable asset, but far too few people make use of it. If your training is leading to acceptable progress and you're not hurting yourself, keep doing it. However, continue to read and learn in the

5) Just Do It! With apologies to Nike, don't let information overload reduce you to a state of "paralysis by analysis!" Again, let go of trying to find the perfect way. As you grow and learn, so will your training— that's the way it should be.

6) Magazine Editor Syndrome. This is well-described in the ISSA's educational materials: Essentially, there are only so many ways to lift a weight, so if fitness magazines are to continue publishing training articles, they've got to continuously find new spins on things. Don't let this reality take you off-course.

7) The "guru syndrome:" In an effort to come across as an expert with a unique methodology, many well-known training authorities will present obscure, unique, or otherwise novel information without regard for the correctness or usefulness of that

information. In order to secure their marketability, many gurus actively seek out contrarian points of view or information. As soon as you read or hear this “contradictory” information, you’re left feeling like you’re a beginner. And if you’re a beginner, that means the guru is the expert, which is just where he or she wants to be. A guru doesn’t have power unless you give it to him (or her).

— Charles

Tactical Training For The Combat Athlete with Tim Larkin

Attention To Detail (Or How To Not Embarrass And/Or Hurt Yourself While Kicking Ass)

Since starting this column I've got a good deal of feedback about covering the basics of targeting your opponent. This month I'll continue to cover my general principles on this subject and invite your questions during the month. Also feel free to suggest some topics you'd like me to cover or expand upon for your combat training.

The focus of this column is not a particular art or style but general training concepts that everyone can apply. I emphasis the real life and death application of combat training rather than the sport application because I believe there are many places to find technical information about your particular art or style. There is very little information on good overall principles to use in your everyday self defense applications.

So with that in mind here is a list of do's and don't for various grabs, holds, punches, and kicks:

Grasping: When grasping, allow your hand to come to rest on the bodypart you wish to hold. Don't try to hit and hold simultaneously or your hand will bounce off your target.

Grasping: When grabbing clothes push the clothes up first, then grab the wrinkled area thumb down turning the thumb up as you pull in or push out. This enables you to really get a good hold on the clothing and control the attacker.

Punching: Here's a basic but VERY overlooked principle; When punching to the soft parts of the body use the hard parts of the hand. When punching the hard parts of the body use the soft part of the hand.

Punching: When striking the kidney keep your palm down as it provides a far better force vector for that punch.

Punching: When striking to the ribs you may extend the center knuckle, keep your thumb up. That knuckle strike is the difference between bruising ribs and breaking them.

Punching: When using a roundhouse/hook strike to the jaw line use your middle knuckles as the striking surface.

Elbows: When punching with elbows make sure to keep a tight fist and strike with the elbow tip. Hold the forearm in a vertical position.

Hand/Wrist Leverages: Start the hold with your thumb down and turn your thumb up with his thumb away from his body. Use your other hand to reinforce the hold as soon as possible.

Kicking: If you kick above your attacker's waist he will bend backward taking about a step and one half back. If you kick below the waist he'll bend forward and go back about a half a step (steps are based on the natural stride of the attacker).

Kicking: When you kick move into the kick, not away. You want to transfer all your force into the attacker.

Kicking: Don't kick above your chin level if at all possible. High kicks take longer to land and stay in view of your attacker, giving him time to counter. If you want to kick your attacker in the temple, kick out his kneecap first, then the temple is very easy to strike.

Some of these tips may be familiar to you, but do you actually USE the information? This month apply one or two of them during your training sessions and notice what a little attention to detail does to your performance. Feel free to email me at hand2weapon@hotmail.com with your feedback or questions.

Tim Larkin is a Master Trainer in Hand2Weapon™, with over 20 years experience in the martial arts and military hand to hand close in combat training. Formerly a master instructor with the SCARS Institute, Tim has provided hand to weapon instruction for members of some of the most elite units in the special operations arena including US Army's Delta Force, US Navy's Development Group (Formerly SEAL Team Six), USMC Force Recon, US Army Special Forces, USAF Combat Control Teams and the FBI's Hostage Rescue Team. Mr. Larkin is a consultant for various training companies and offers a limited number of seminars in his Hand2Weapon™ system to the general public at his training center in Las Vegas, NV. For information on these seminars call toll free 888-285-6192 24hour recorded message.

Food For Thought with Dave Greenwalt

Don't Sweat the Small Stuff?

A Power Store customer wrote me and asked:

"Question for you...I drink coffee...A Helluva lot of coffee! A couple 20 oz mugs in the morn. another at noon and sometimes another later in the day. With each mug I put in a little cappuccino(sic) and a couple of tablespoons of Fr. Vanilla creamer. Now, the question is, do the creamers and etc. provide too much of an insulin boost that'd make it difficult to burn off fat? Should I quit using this or find an alternative? Or should I not sweat the small stuff? (I am aware that the capp. and creamers add about 200 cal.) I realize it's an odd question, but I want my diet, workouts and everything else to be in order for the beginning phase of the Leanness Lifestyle.

Here is what I have to say:

It depends on what you want. If you want better than average but not great then choose foods and a lifestyle which can bring that to you. If you want to be fantastic then you don't get to drink a liter of coffee per day with 200 extra calories of creamers unless you are willing to trade out 200 calories from somewhere else. You could probably do this but the end result you want is fat loss so if you can get fat loss by following the Leanness Lifestyle (protein at every meal, fruits and veggies daily, never stuffed, never starving etc. etc.) then you can pretty much do whatever you want as long as you are following the plan. Just don't expect changes in your body without sufficient changes in your diet and meal planning.

Average bodied people or less than average bodied people don't sweat the small stuff but they aren't interpreting that phrase properly in my opinion. Not sweating the small stuff includes not getting all bent out of shape over having a hair out of place, not going nuts when someone cuts you off a little close on the freeway, not cussing your spouse out because she didn't fix tacos with chicken, not screaming at your kids because they got a "B" on their report card and I agree with all of this. But, some want to interpret "the small stuff" as being able to eat any way they want, not exercising properly (because doing it right would be admitting that not doing it right is important and thus, not small) and so on.

It's the small stuff that sinks most average bodied people who want to achieve greatness in their physiques. The little nibble of candy here and there all day. The constant snacking that supposedly doesn't count. The constant fat intake that is just 10% higher than it should be. The protein intake that's only a "small" 20% less than it should be. And the carb intake that's only a small 20% higher than it should be. You see, all of this "small" stuff really isn't small when it comes to having a great physique. It all matters.

Should everyone worry themselves to death about it? No, it takes all kinds to make this world of ours go around. But, let me say one thing. It's very evident who is paying attention to the small stuff and who isn't. Look around you and unless you're at a bodybuilding show average is not great today. 58 million Americans are overweight or obese!

I compete in amateur bodybuilding shows around 180 pounds at 5 percent body fat. I have to pay attention to the small stuff when it comes to nutrition and training. I try very hard NOT to sweat the small stuff examples I provided above relating to living in relationships but I have only achieved what I have achieved physically because I watch the small stuff.

"It's the little things that make the big things possible. Only close attention to the fine details of any operation makes the operation first-class." — J. Willard Marriott (1900-1985) Founder, Marriott Corporation

David Greenwalt CSCS
Dave's Power Store
http://www.thepowerstore.com

2x+1 With Jeff Smith

Key Projects™

Summary:

During the course of a year, you could potentially work on dozens, maybe hundreds, of different projects. A small number of these projects will have 5-10 times the return for the time and energy you invest in completing them. These high-payoff projects are what we call your Key Projects.

Key Points:

• A PROJECT contains many different activities. Usually only one or two of them are profitable or important enough for you to do personally. These are your MOAs for that project. Every other activity that must be done should be delegated to someone else to free up your time to stay focused on MOAs.

• Certain projects will return 5-10 times the profit of your other projects. These are your Key Projects.

• The key to large income increases is to identify the most profitable projects for you and them make them your #1 priority to complete.

The Shift To Make:

Most people make two fundamental mistakes that prevent them from maximizing their income:

• They value all projects equally and never identify which projects are actually the most profitable to complete. As a result, they generally never get around to completing the Key Projects that will make huge differences in their income and lifestyle.

• They work from a To Do List of all the activities necessary to complete a project, and never make a distinction between the highest-level activities (their MOAs) and all the other activities. Consequently, they frantically run around trying to check items off their To Do List, when they could be making far more money and working far less hours just by focusing on their MOAs and delegating all the other activities necessary to complete their Key Projects.

How To Make The Shift:

• List all of the projects you could be working on. Assign a dollar value to each that represents your best "guess-timate" of the profit you'll earn when that project is completed.

• Pick out the 3 projects with the highest profits and make these your Key Projects.

• Make a list of all the activities that must be done to complete the Key Project and assign a dollars per hour value to each. Pick the activities with the highest dollar per hour value and make these your MOAs. Focus on delegating as many of the other activities as possible.

DURING THE PAST 11 YEARS, Jeff Smith has developed an international reputation for helping entrepreneurs multiply their profits in very short periods of time with his proprietary "2X+1 Lifetime Profits Process" which almost instantly converts your current clients into a lifetime stream of profits for you and your company.

Smith has personally coached more than 1000 CEOs, business owners, sales professionals, and doctors across North America, Canada, England, and Australia to help them create the business and lifestyle of their dreams.

A frequent guest on radio and TV talk shows nationwide, Smith is also the creator of the Stress-Free Success System, The 2X+1 Mastermind Coaching Program, as well as the author of Stress-Free Success, Focus On Your Dream, and numerous other books, manuals, and special reports.
Top entrepreneurs and sales organizations from around the world currently hire him to speak at their functions, as well as for private consultations to help them devise new marketing and business growth strategies, integrate their business with their personal life, and lead a healthy, balanced, stress-free lifestyle.

Jeff is available for keynote addresses, private consultations, marketing consulting, ongoing group and leadership coaching, as well as teleconferences, live workshops, and seminars.

He can be reached directly by emailing him at stressfree@lvcm.com or writing to him at Jeff Smith, Center For Personal Excellence, 1001 Eaglewood Dr., Las Vegas, NV 89144

Boil The Frog

by Charles Staley, B.Sc., MSS

Acute, catastrophic injuries resulting from weight training are thankfully, rare.

For those of us with chronic, painful, "non-descript" injuries however, that fact is less than comforting. There's nothing more frustrating than that all-too-familiar "it doesn't hurt until I lift" pain.

Sometimes, these injuries take the form of chronic inflammatory problems such as medial-epichondialitis (tennis elbow), a shoulder that clicks, low back spasm, heel pain, the list goes on and on. Often, these injuries are unnoticed during normal day to day activities, but as soon as you try to run or lift, or anything else, there it is again. This leads to the observation that weight training doesn't cause injuries, it reveals them.

In this article I'm going to outline a training method that, more times than not, will allow you to re-establish your training without flaring up those injuries. I call it the "boil the frog" method. But first, let's look at a few things you really should consider if the opening paragraphs of this article sound like you.

1) Get a complete physical. Blood work, the whole nine yards. Make sure your hormones are balanced, that you don't have any glaring nutritional deficiencies, stuff like that. Incidentally, very few people seem to appreciate that health SCREENING is not preventative— screening by itself won't improve your health. It just tells you what's wrong. Nevertheless, it's important to rule out as many factors as possible before you start examining things in more detail.

2) Massage does a lot more than "relieve tired muscels," as the miss spelled sign at my local 24-Hour Fitness Center states. A good soft-tissue therapist can assess your "basic" soft-tissue health— is your muscle tissue healthy, or is it loaded with spasm and trigger points? This is an important step because if you've got spasmed tissue, your training efforts will just lead to further spasm and scar tissue. Here's what happens: a spasm is basically a hyper-contracted chunk of muscle— in other words, it's contracting on it's own volition, not because you're asking it to contract. Over time, that little chunk of muscle becomes ischemic— meaning, it's not getting sufficient oxygen. Eventually, that leads to tissue death and ultimately, a scar. Now you're screwed, because when you train that muscle, there's less tissue available to do the same job, and the borders of that scar tend to tear, then spasm, then lose oxygen, then scar, etc., etc. Bottom line— if you don't have spasmed tissue addressed with massage, it just gets bigger and bigger.

3) Seek to achieve an "anti-inflammatory diet." Avoid processed carbohydrates, and make sure you're getting adequate protein, water, and EFA's. If you don't know how to eat, go to www.JohnBerardi.com or www.metabolicDiet.com.

4) Don't ignore flexibility and aerobic exercise. You don't have to make a career out of it, but resistance training tends to be "anti-circulatory" (when you contract a muscle more than about 75% of it's maximum force, it actually shuts off it's own blood supply) as well as "pro-contracture" (meaning, tends to shorten muscle tissue).

Now It's Time to Boil That Frog

There's an old parable about what happens when you throw a frog into a pot of boiling water— it's jumps out! However, as the parable teaches us, if you put the frog in some warm water, it just sits there fat and happy. Now what you do is slowly, ever so slowly, turn up the temperature until the water boils, and the frog never knows the difference.

OK, I know, probably at some point the frog will jump out, but don't miss the point of the story: if you apply a stress very consistently and gradually, and provide adequate resources for recovery, the organism (body, muscle, tendon, whatever), will learn to tolerate it.

Now keep in mind, some problems are not fixable, no matter what you do. For example, if you have no meniscus cartilage in your knee, you'll probably never become a marathon runner (on the other hand, I know of at least one instance of a one-legged athlete squatting over 600 pounds in official competition!) But if your injuries have ANY possibility of healing, I have a way to do that.

Why Charles Couldn't Squat, And How He Fixed It

Here's a practical example of how this principle actually worked for me:

In 1986 I had a total open synovectomy on my right knee to (hopefully) solve a nasty case of synovial osteo-chondramotosis. In plain English, the synovial lining of my knee was, for whatever reason, producing little pieces of calcium that would break off and start wandering around in my knee joint.

Anyway, to make a long story short, the surgery worked, but left me with only about 110 degrees of flexion in that knee. So after about 5-6 years of weight training, I created a hip imbalance that over time, rendered me unable to squat without constantly tearing my left adductor muscle(s). You cannot imagine (OK, maybe you can) the frustration I experienced, not being able to squat, deadlift, or perform any lower body movement without having 4-5 days of massive soreness in my left adductor (if it was both adductors, I probably would have been happy!).

In any event, I initiated an experiment. One day, I squatted the empty bar for 3 sets of 5 reps, confident that this ridiculously minor load would have no adverse effect.

I was wrong. The next morning, I lightly tore my left adductor sitting down on the toilet. I was livid and frustrated beyond description. But I persevered. Six days later, my adductor felt fine, so I grabbed that bar and did one single set of 5 reps— 1/3 the load of the previous workout.

Next day, hmmm. A little bit of soreness in the left adductor. As soon as that soreness was gone (about 2 days later), I did 45 for 2 sets of 5. Again, this resulted in light soreness. So 2 days later I did 2x5 again, and FINALLY, this load did not injure me at all.

Gradually, I worked my way up, and to reach the conclusion of the story, today I can squat 450. I won't win too many power meets with that squat, but for a 44 year old geek with a knee that (according to my surgeon) shouldn't permit me to even walk, I consider it a victory.

10 Steps For Training Pain-Free

If your goals mean enough to you can you can delay gratification, I believe you can experience similar results in your own training. There are a number of ways you can set up your training cycle. You can use whatever your favorite weekly training split, but consider these suggestions:

1) Use the widest possible variety of exercises, stressing varied positions and joint angles. Especially stress positions that you don't tend to use for fear of injury.

2) At the beginning use loads that you're SURE will not provoke your injury. This might in some cases mean doing stuff like curling no weight for 5 sets of 5 (yes, I'm serious).

3) Progress VERY gradually. In the case of the empty curls, work up to 5x6, then 5x7, etc. When you hit 5x10, start curling a 2.5 pound plate for 5x5. Then 5x6, etc., etc.

4) Because the loads are so light, you won't really need to rest between sets much at all.

5) Because the loads are so light, you should be able to train frequently— probably every day. The body's most unique feature is it's ability to adapt— more frequent training "teaches" the body to accept constant challenge.

6) If at any time you re-injure yourself, wait until your symptoms subside and drop the previous workout's volume by 1/2. In other words, if 4x6 caused re-injury, wait for it to heal and then do 4x3. If that goes OK, start climbing your way back up.

7) Be flexible and creative. If something on your schedule hurts right at the outset, make a pain-free substitution right then, on the fly.

8) Understanding pain symptomology: Sometimes you'll know if you're hurting yourself right when you're performing the offending exercise. Sometimes you won't know until the next day. Pay attention and become sensitive to these issues.

9) Despite my earlier advice about stretching, don't stretch a sore, torn or "tweaked" muscle— you'll only injure it further.

10) Start right, finish right: Light aerobic activity before and after the workout will make tissues warm and more pliable (pre-workout), and will enhance circulatory oxygenation and cellular nutrition (post-workout). Don't cut corners, EVER.

The Tortoise and The Hare

Ever wondered why parables always involve animals? Me too. Anyway, the slow but steady approach must be your constant mantra if you want to keep training in the wake of chronic injuries. The guy squatting 800 on the rack across the gym might be mere moments from an injury anyway. Seek slow, continuous, steady challenge every day— your injured tissues don't like big surprises, they like predictability. Treat your body with a velvet glove instead of an iron fist, and you'll be rewarded for your efforts.

Twelve Parallels Between Training and Life

During our many conversations, Jeff Smith and I have begun to notice a number of interesting connections, or "universalities" you might call them, between success in training (micro view) and life in general (macro view). It turns out that if you are successful in one realm of life, you can identify and apply the same principles to another area with similar results. This month, I thought I'd share some of these parallels with you. I hope these observations stimulate your own creative exploration, and I'd also love to hear your feedback on this and other topics presented in *The Unnatural Athlete*. Enjoy!

1) Goal Directed Behavior

A goal is a written expression of intent to accomplish an objective. In order for your wishes or desires to become goals, they must satisfy the following requirements:

1) Stated in writing: If it isn't written, it isn't a goal. Period. It may be a wish, or a vague desire, or a fantasy, but it isn't a goal, and you're not likely to achieve it.

2) Specific and measurable: Your desire to become "as big as a house" isn't a goal. It isn't specific enough. We need to talk pounds at a certain bodyfat percentage, not real estate.

In order to be specific, your goal must be quantifiable. This is a very significant for bodybuilders, who's sport is by definition qualitative and subjective.

3) Personally meaningful: Your goal must be worthy of your unconditional resolve and personal sacrifice (defined as giving up something in order to gain something greater as a result) for the allotted time-frame, or you won't bother to pursue it. It must have real value and undeniable potential to improve your life. The desire to get down to 7% bodyfat by May 1st so that you'll look great at the beach this summer is specific, challenging, and has a completion date, but other than soothing your ego, what meaning does it really have?

Now of course, if this goal (getting down to 7% bodyfat by May 1st) is part of your long-range objective to become a champion bodybuilder or fitness competitor, we now have a more meaningful context for your objective, since your competitive aspirations will have rewards above and beyond ego-gratification, such as career possibilities, character development, and so on. Once you can see the complete range of benefits that accomplishing the goal has for you, you'll be ready to commit enormous personal resources to achieve it. Now think back to your original motivation— looking great at the beach. Is this goal really worth the considerable time and effort that it'll take to achieve? If so, proceed. If not, explore other goals which will significantly impact your life when you accomplish them.

Additionally, goals must be framed in such a way that they push your emotional "hot buttons." For example, it may be that you have a goal to deadlift 400 pounds by your 40th birthday which is in eleven months. Your current PR is 355. This is a specific, challenging, and presumably meaningful goal for you. However, step back for a second and consider which sounds more attractive: 400 pounds (a nice even number), or, 405 pounds, which is (4)

45 pound plates on each side of the bar. Or, if you happen to weigh 205 pounds, perhaps the concept of lifting 410— double your bodyweight— has the most appeal.

There is no right or wrong answer here— the point of the exercise is to see how slightly different ways of framing an objective can effect your emotional reserves. Which option seems most appealing to you?

4) Optimally Challenging: If your goal isn't challenging, you're not likely to mobilize significant resources to attain it. For example, using the previous example of the 400 pound squat, some would argue for a more "realistic" goal of 365 pounds. However, while certainly realistic, a 15 pound improvement in 11 months is hardly the stuff of dreams, is it? In fact, it's such a small increment that you might be likely to forget about it before the day is over! Better to aim for the stars and fall on the mountain peaks, as they say.

5) Date of completion: Time-frames are what create pressure to get the job done. Your time frame must be aggressive, but realistic. If you're not sure if your goal can be accomplished within a certain time frame, you'll have to either base your time-frame on personal past experience, or you may have to do a bit of intelligence work in order to find out.

6) Stated in the positive: Remember the old story where the football coach says to his star receiver "Whatever you do, don't drop the ball!"? Guess what he ended up doing? You can't plan to not accomplish something.

Maybe the scariest aspect of goal orientation is the moment when you achieve your goal. What's the next step?

My suggestion is that you document your success— use your training log or tracking software if you use such tools. This act enables you to review your goal from inception to completion. It also fosters belief in your own abilities, especially as you accomplish more goals. Why do you think it's so universal that kindergarten kids receive "stars" or similar tokens as testament to their accomplishments? Why do you think Weight Watchers awards 10, 20, 30-pound (and so on) ribbons to members when they lose the corresponding amount of weight? The answer is simple— to provide a visual reminder of the accomplishment. You should do the same, as silly as it may sound.

If you goal was designed to be a quantitative measure of a qualitative objective, did the fact that you accomplished the goal fulfill the objective? For example, if your objective was to increase the size of your quads and hamstrings (qualitative), and you established a goal to increase your back squat by 50 pounds in six months (a quantitative goal), did the gain in your squat performance correlate with significant leg mass? If not, was accomplishing the goal worthwhile anyway, for other reasons? If the answer to either or both of the above is "yes," you now have solid information to base further goal-setting on.

Goal orientation is truly an autotellic activity (see parallel number twelve)— in other words, it has intrinsic value above and beyond the expected outcome. History shows that individuals facing specific challenges which must be solved within a specific time frame are able to

mobilize seemingly impossible resources to achieve their objective. Conversely, individuals who rarely face such challenges never reach even a small percentage of their true potential.

Just like muscle, goal-orientation responds to training— the more you do it, the stronger it gets. The more difficult the challenge, the more you'll learn how to "raise the bar" and set new standards for yourself. If you still find yourself thinking "Jeesh— this seems really involved and complicated!", consider the following question: Will you be more successful as a goal-oriented person, or as someone with no goals? I'll let you be the judge.

As a final thought on the subject of goal orientation, consider this paradigm shift I first learned from Jeff: structure your goals around controllable events as much as possible. For example, when I work with an athlete, I never frame our objectives around winning a particular competition or game, since this type of outcome depends on a multitude of factors, many of which I have no control over. If the athlete loses the competition, I'll end up taking the blame even if I did everything right!

Instead, my strategy is to first develop a set of underlying assumptions about the athlete's conditioning level. For example, if a client has exceptionally long hamstrings and glutes (hip extensors), yet exceptionally short hip flexors, I can assume that performance of both muscle groups can be enhanced by lengthening the flexors.

Next, I develop "tasks" based on the underlying assumption. In this example, I'll designed a flexibility and/or soft tissue therapy program intended to accomplish my objective.

Finally, I implement the strategy and monitor for results. If the hip flexors do in fact become longer, then my implementation was correct (of course, if they did not get longer, my methods and/or implementation of those methods was flawed). If performance improves as a result, then my underlying assumption was correct. If performance remains unchanged or worsens, the assumption was incorrect.

2) Planning

There's an old carpenter's mantra: measure twice, cut once.

You MUST know the end result BEFORE starting anything! As Jeff likes to remind people, you wouldn't try to build your dream house without a blueprint and by going down to Home Depot on Saturday morning and buying a truckload of wood, then going back and nailing it all together and expecting you'd end up with your dream home! So why would you try to build a great body, business, or life without first defining your goals, then mapping out the route to your goals (your blueprint)? There is never a lack of time, only a lack of clear-cut priorities and discipline to follow them.

3) Never Sacrifice Quality for Quantity

Motivation is a funny thing— if you need it, it's a sure sign that you're doing things all wrong!

When the reason WHY you're doing something is strong enough and you're emotionally involved enough in it, motivation ceases to be a factor- ie, you don't have to "motivate" yourself- you look forward to doing the work (or workout) because you have made a direct connection between it and the end result you desire passionately

4) Fatigue Seeking Versus Fatigue Management

"Any coach can make you tired" — Loren Seagrave

This is one of the most interesting parallels, because in life, most people understand the importance of fatigue management, but in training, almost no one does.

In the gym, most people have a strong tendency to seek fatigue rather than effectively manage it. Not you, you say? Ever wake up sore after a workout and think "Wow, that was a great workout!" If so, you're what I call a "fatigue seeker."

Now obviously, soreness, exhaustion, and various levels of discomfort are often unavoidable side-effects of effective training. However, they should never be viewed as the objective of training.

Over time, many people develop an association between effective training and the side-effects of that training. In other words, last month you trained hard and made a lot of progress. During that time, you were frequently sore, and maybe your joints ached. Over time, you learn to develop an association.

Paradigm Shift:

Just because you're experiencing fatigue from your training doesn't mean your fitness is improving. And conversely, effective training doesn't always hurt.

I once worked with a college level football player who hired me to prepare him for the NFL combines.

This particular athlete had a tremendous work-ethic. He was used to training in the weightroom for 5-6 days a week, for 2-3 hours at a time.

The program I wrote for him focused on improving his single repetition maximum, or the most weight he could lift for one rep, but not two. This type of training is difficult, but does not leave you feeling "trashed" like a typical bodybuilding-type workout (composed of high repetitions and minimal rests between sets).

I got a call from my client after he had been on the program for about 12 weeks. "How's training?" I asked him. "Well, I don't know" he replied. "I really don't even feel like I'm training...I don't usually even break a sweat." I could tell he was enormously concerned.

“How is your bench press performance?” I asked. “Oh— that’s doing great!” he exclaimed. “I did a 355 two days ago!”

I then asked “Look, do you just want to be in pain all the time, or do you want your performances to improve?” In the silent moments that followed, I could almost hear him make a new association. He had in fact, improved his bench press from 315 to 355 in only 12 weeks. Upon reflection, it suddenly occurred to him that this was more improvement than he had made over the past 3 years combined— years where is was in almost constant pain and exhaustion from his herculean training schedule.

Another paradigm shift:

The effectiveness of training is not measured by how much fatigue it produces, but rather, by how well it improves the quality that is being trained.

Application to life: When you can no longer perform a task to satisfaction (say, writing an article) switch to a different task (say, making phone calls). This strategy is based on the fatigue management principle that fatigue is specific: even when one task can no longer be performed to satisfaction, you’ll find that another type of task can still be satisfactorily performed.

Application to training: When you can no longer perform a task to satisfaction (say, working on maximal strength for pectoralis) switch to a different task (say, working on maximal strength for biceps).

Separation of Tasks:

Life: distribute tasks across different days: fun days, MOA days and neutral days.

Training: separate workouts by motor quality and/or muscle group

Another Fatigue-Management Strategy: Front Loading

Since fatigue steadily accumulates over the course of the day (or in training, early in the workout), get the lion’s share of your important tasks done early in the day, while you have the most energy (also applies to week, month, year, etc). In your exercise sessions, rest less between early sets, and more between later sets, to account for accumulated fatigue (rather than taking “standard” rest intervals).

Making the shift:

In your resistance training workouts, instead of resting (for example, 2 minutes between every set, have a look at your set/rep scheme and assign a time frame for completion. If you’re using 5 sets of 8 repetitions for example, you might assign a 20 minute time frame. Now, simply get started with a constant eye on the clock. Complete your first set, and then your second as soon as you think you can complete it satisfactorily. same for sets 3 through

5. You'll find a natural tendency to get a head start early on in order to gain most rest between the last few sets, when you'll really need it. This method of managing fatigue can easily reduce your training time by 30% or more. It also "puts a fire under you," and the higher psychological intensity will improve the benefits you'll see from your workouts.

Another strategy: Over the course of a month, try to complete the same workout in gradually less and less time. This increases the density, or work-rest ratio of your workouts, which can be beneficial in cutting bodyfat while keeping your hard-earned muscle.

Optimize the Cost/Benefit Ratio

Every time you expend resources to a task (time and energy primarily), consider the "cost-benefit ratio."

In other words, no activity consists of purely benefit or purely cost— ALL activities have both benefits and cots. However, by structuring your activities wisely, you can maximize the ratio between benefit and cost.

The simple way to optimize the cost-benefit ratio is to discontinue a task when quality declines significantly. Most people have at least an intuitive grasp of this concept— for example, if you were working on a multi-day project, such as painting your house, how much of it would you try to do in one day? Of course, the answer is, as much as possible while maintaining an acceptable level of quality. If you found yourself spilling the paint repeatedly or slowing down to the point where there was no point in continuing, I bet you'd stop for the day. However, virtually NO ONE applies this obvious strategy in training. Example: the most oft-performed set/rep scheme is 3 sets of 10. However, my investigations show that when an exerciser performs 10 repetitions in an "all-out" manner, generally 5-6 reps are low quality (as measured by speed of execution— please see The Unnatural Athlete archives for the rationale behind this concept). This means that 4-5 reps had an acceptable benefit relative to the cost of doing them, and 5-6 reps had far more cost than benefit. And this is the way that 98% of all people exercise.

5) Weak Link Identification & Resolution

It may be cliche, but it's still true. Everyone has a "kingpin" (this is a word used in the logging industry referring to the one log in a log jam which, when removed, restores the flow of logs down the river) holding them back. Identify your kingpin and performance shoots forward quickly again— until you ID it, performance remains stalled (in athletic terms, the kingpin may be a particular muscle, motor quality, lift, or event).

Here's a recent real-life example of this critical principle:

I recently worked with an elite 33 year old female athlete. Her goal was to bring her power clean from 215 pounds to 231 pounds in four weeks.

Upon my initial evaluation with her, it became immediately apparent that she had unusually long hamstrings and glutes, yet at the same time, unusually tight hip flexors (as tested in both static and dynamic situations).

There are at least two problems with this finding from my perspective:

First, whenever there is a significant disparity between the length and or strength of antagonistic groups, one muscle must work harder than usual in order to overcome the tightness of it's antagonist.

Second, any tight muscle has a poor "length-tension relationship," meaning that in a resting state, there is excessive overlap between the actin and myosin filaments inside each sarcomere. The problem here is that, essentially, the muscle is already contracted at rest. When you ask it to contract, it can't because it already is!

Based on these two assumptions, I implemented a voluminous flexibility program for this client. The results? Twelve days after the start date, my client power cleaned 231 pounds.

6) There is No Best Way

Have you ever wondered why there's no such thing as the "best" food? It's because all foods have distinctly different nutrients and other properties. Training and life are the same way.

Same as no one best way to grow a business, lead a great family life, or to achieve a World record in sport. The key is to find the one way that works for you, and also to realize that NO way will work forever. Your strategies need to be continually monitored, changed, and updated to ensure sure optimal results based on current conditions.

7) The Law Of Progressive Overload

This is perhaps the most universal principle of all— life requires challenge in order to thrive. Small challenge, small result. Optimal challenge, optimal result. Excessive challenge, injuries and setbacks.

You need overload to improve in the gym, and you also need it to improve at business. Ever hear someone say that they have"20 years of experience" when he really has one year of experience repeated 20 times? You can bet that he's never applied this law. This is why people never make progress despite going to the same aerobics class 200 times. The problem is, there's no progressive overload. The key is to figure out how much overload is optimal, how quickly to increase the challenge (see parallel number 8 below).

8) Kaizen: The Law Of Sustainable Progression

The key to long-term success is "kaizen"— small, almost unnoticeable incremental improvements made on a regular basis— these seem inconsequential in and of themselves, but soon compound to HUGE changes in results. The typical male weightlifter will

commonly try to improve a large lift (such as a bench press or squat) by 5 pounds a week. This seems modest enough, but if you project this out over one year, it equates to a 260 pound improvement! Not terribly realistic for most of us.

Use the Rule Of 38X— improve any area 1% each day for a year and in 12 months, you'll be 38 times better in that area or get 38 times better results in that area.

9) Documentation

Keeping records is absolutely fundamental to success in any endeavor. How do you know you're getting better without them? Everything must be QUANTIFIABLE in workouts and in business— business is a numbers game, the same as athletics— Keeping your personal records (workouts and business) is great motivator— ie, if you keep records in 50 different areas, every time you work out (or work on an MOA), you can be setting a personal record in at least one of those areas so you always have momentum driving you forward.

10) Do What You Can With What You've Got

When athletes sustain an injury, it's often very difficult for them to focus on doing training-related tasks that can be successfully performed without worsening their injury. Instead, they tend to obsessively focus on the things they cannot do. This is a completely illogical thought pattern, and I'll tell you why: when you're perfectly healthy, there are so many training objectives one can and should focus on, there really isn't enough time to do it all— that's why periodization was conceived!

So if and when you're dealing with an injury, use it as an opportunity to work muscles and/or motor qualities which you normally never get around to— perhaps rotator cuff training, lower abdominal work, or more flexibility training. When the injury heals, you'll find that you'll be starting the next program with a much more fortified base, which means you'll reach a higher peak.

Think of this principle as "treading water"— don't quit swimming altogether when you encounter difficulties. After all, many people quit their workouts altogether for three months, then have to spend three more months getting back to where they were!

Here's an investing analogy from Jeff which incorporates the same principle:

If you lose 20% on your money, it takes a 25% gain to get back to starting point. If you lost 50%, it takes 100% gain to get back to starting point. If you lost 80%, it takes 400% gain to get back to starting point. So there is an exponential cost to losing...and therefore an exponential benefit to at least treading water and not going backwards...

FORM is key in exercise training, and the same applies in business: ie, doing marketing activities with anything less than optimal "form" equates to virtually zero profits

Level of performance is directly proportional to the width of the base of preparation (ie, more preparation of the RIGHT type = better performance) Same holds true for business and life

Practice does NOT make perfect. Perfect practice of the RIGHT things makes perfect performance

11) Time Has No Direct Correlation to Results

In training 15 seconds of "quality" time (maybe 10 singles on a power clean) will do more good than 30 hours of "normal" time (ie, 30 hours of Tae-Bo) Sprinting superstar Ben Johnson spent three hours a day, six days a week on his training— in other words, he "worked" 18 hours a week on MOA's (see Jeff Smith's columns in previous issues of *The Unnatural Athlete*) and set World and Olympic records. Take-home lesson: correlation: you don't have to (nor should you) work 60-80 hours a week to be number one in your field

However, there is an exponential difference between first and second place! For example, Tiger Woods makes $50 million annually, whereas the number two ranked player (what's his name again?) might need to practice an extra 30 hours per week to knock off Tiger, who could probably be ranked second without practicing at all. So all those extra hours are to give him the "razor's edge" that make difference between first and second. Hence, to be GOOD, time has little correlation to results, but to be GREAT, time is often a factor.

Off the playing field, if one wishes to be a GOOD businessperson and live a GOOD life, you could probably do it in 10 hours per week of MOAs and minimal stress, but to be the BEST businessperson and wealthiest in the world (a totally different objective...GOOD vs. BEST) may require 60 hours a week and tons of stress. The point being, most people fool themselves into thinking they want to be the best, when being "pretty damn good" is often just fine.

12) Mastery and the Autotellic Mindset

"Autotellic" is a term coined by Mihaly Csikszentmihalyi to describe the ability to derive optimal experiences in life through the pursuit of activities which are done not for a secondary reward, but instead, purely from the intrinsic benefits of doing them.

Albert Einstein once administered an examination for his graduate class at Princeton University. After the exam was finished, Dr. Einstein's teaching assistant asked "Professor Einstein, wasn't that the same exam you gave last year?"

"Yes, in fact it is" Einstein replied

"Well, how can you give the same exam two years in a row?" asked the puzzled assistant.

"Because the answers have changed since last year" Einstein replied.

Although I would certainly never refer to myself as a master, I do think I've learned something about mastery over the past few decades: it requires a certain tolerance for not

knowing. This is a purely pragmatic strategy, based on the irrefutable fact that neither you or I will ever know all the answers. Since we will never know, it becomes a handicap to think that one does know—it is an illusion. It is a barrier to learning. Truly, when someone says that they have "figured it all out," it is a certain sign that they have not.

Even though I have been relentlessly studying my craft for well over 20 years, I still have questions— more now than ever before, as a matter of fact. My questions may be on a different level than yours, but believe me, they are just as frustrating.

If you are truly determined to learn as much as possible, let me share a simple secret: it is passion, not discipline, that creates the energy to travel the path of mastery. When I think back to all the countless hours of studying and experimenting, all the money I've spent on books, videos, seminars, and courses, I realize that no one could be disciplined enough (certainly not me!) to put the kind of time and energy into a craft that I have over the past 20 or so years. Only a sincere, burning desire to do it for it's own sake, can generate the results that you want. As one of my early teachers used to put it, you have to love it like your first girlfriend— you have to be consumed with it constantly...you think about it day and night, until no one can even stand you anymore! What I'm describing here is not discipline at all, is it?

As you travel this path, keep in mind that it is not simply how much you know, but how much you use of what you know, that really counts. Think about it: do you always eat every 3 hours? Do you, right now, have a set of written goals for the year 2001? Do you always use the best form possible in every workout? Until you can answer "yes" to these questions and others like it, the real issue may not be what you know, but what you apply. After all, we know exponentially more than we did 30 years ago, when people were still getting into excellent shape despite their limited understanding about training and nutrition.

The fitness arena is rife with people who seek to intimidate their professional peers through the use of highly technical terminology, by referencing endless reams of scientific research, or by prescribing exercises and programs that are highly unusual. I personally know many trainers who are more concerned with impressing people with helping them. When you encounter these types, just remember that the most successful trainers are those who get the best results for their clients, NOT those with the largest vocabularies or the most college degrees. So continue to do your work with care, make learning your way of life, and of course, don't forget to APPLY what you know!

Q&A

Q: Hi Charles,

I am a competitive cyclist, and I am putting together my training schedule for the 2003 season.

I came across a reference to your articles on EDT and followed the lead. The thesis of the EDT program intuitively makes sense, however I have a couple of questions:

1) Is EDT appropriate for a cyclist whose primary limiter is power, or is it better suited for competitive weightlifters/bodybuilders?

2) If EDT does make sense for cyclists, and I am planning on devoting a good portion of the winter and spring to strength development, both on and off the bike, how much time (i.e. 1 month?, 6 weeks?, 3 months?) to EDT.

A: The EDT protocols as presented in my recent articles in Testosterone.net and next month's issue of *Muscle Media* magazine are designed for muscular hypertrophy and short-term anaerobic endurance, as well as lactic acid tolerance. If your performance "kingpin" (weak link) is speed-strength, this protocol would actually decrease your cycling performance.

However, the complete Escalating Density Training system is far more involved than what has been presented in these recent articles. In fact, EDT is an integrated system of principles and methods which can be applied to any training objective. In your case, you'll need to start with a comparison of your current performance capacity with your goal performance. You didn't mention what events/distances you complete in, but for the sake of this discussion, let's assume you're competing in a 1000 meter time trial and your current PB is exactly 85 seconds, and your goal is tom complete the trial in exactly 1 minute 70 seconds.

The first concept to appreciate is that your training should be based not on your current capacity, but rather, on your goal performance. It is also dependent upon the principle that volume must yield to intensity.

Now in our hypothetical example, your target is to ride 1000 meters in 70 seconds. Clearly, this is not possible at the present moment. What we need to do is reduce volume just enough so that you'll be able to ride at the required minimum pace. So my suggestion is to first determine whether or not you can ride 500 meters in 35 seconds. For the sake of discussion, let's assume this is possible. What we'll do next is to assign a "work segment" of 500 meters. Next, we'll assign a "rest segment" which is calculated as twice the duration of the "work" portion. Therefore, your workout will consist of 500 meter rides (which must be completed in 35 seconds or less) separated by 70 second rest intervals.

The total distance per workout will be between 1000 and 2000 meters depending on your speed. For example, if your second 500 meter ride takes longer than 35 seconds, you're done for the day. Conversely, if you manage to complete the second 500 meters in 35 seconds or

less, you'll rest 70 seconds and then take your third 500 meter ride. If that is not successful, terminate the workout for the day. If it IS successful, you'll do your fourth and final ride for the day.

If you don't make it to the fourth ride, your goal for the next workout is to improve your times such that you move on to the fourth ride. If you do complete the total 200 meters, you'll reduce the rest intervals by 5 seconds for the next workout and repeat the process all over again. Eventually, you want to complete (4) 500 meter rides, all in 35 seconds or better, with 35 seconds rest between rides. Once you manage this task, you should be able to ride 100 meters in 70 seconds.

While this example is hypothetical and somewhat simplified to make my point, I hope that it helps you in designing more productive workouts in an effort to accomplish your objectives.

Q: Charles, I just want to say that I have enjoyed your writings and training info thru the years..My question is about powerlifting. I use the Westside methods, however I am wondering how you would set up a training program for a powerlifter, using your methods mixed with the Westside method..I usually train 3 sometimes 4 workouts over 7-10 days..I have a home gym and it consists of a power rack 500lbs of weights, a Swiss ball chin and dip bar and I now am starting to purchase bands...I look forward to hearing your comments and applying your principles..

A: I actually love the Westside system as devised by Louie Simmons. In many respects, this system is quite similar to Escalating Density Training. I like Westside's emphasis on identifying and correcting weaknesses, on separating workouts by training task (e.g., speed workouts versus maximal strength workouts), and the premise of training all relevant motor qualities simultaneously (that is to say, within the same microcycle). Nevertheless, I believe there are ways that this system can be made even more effective:

1) Although box squatting is a great tool, for the most part, I don't believe in relaxing the hip extensors at the bottom of the squat in an effort to disrupt the eccentric/concentric chain. This is because the stretch-shortening cycle (needed in the squat event) is a distinct and trainable motor quality.

2) I would assign distinct time zones (called "PR Zones" in EDT parlance) for the completion of core and auxiliary exercises. For example,

3) I would provide heavier work for the lats, including weighted chins. I understand many competitive lifters are large, heavy individuals, but to me, that's not reason to use pulldowns for lats.

4) I would organize auxillary exercises into antagonistic pairings to improve inter-set recovery and to ensure

5) On the so-called "speed days," Westsiders perform 8 sets of 2 reps (in the case of the squat) and 8 sets of 3 reps (in the case of the bench press). The rationale for this, as explained

by Dave Tate, is that a 50-65% weight moved for 2-3 reps roughly approximates the duration required to do a maximal single and therefore trains the appropriate energy pathways for the respective lift. While I understand and appreciate the thinking behind this approach, I have tested many lifters on a FITrodyne ergometer, which measures power output and bar speed. In many cases, the lifter's second rep will be faster than the first. I take this to be a sign of neural (and perhaps psychological) inhibition— in other words, subconsciously, the first rep is akin to "testing the waters" or getting a feel for the weight, and then the second rep is performed with greater aggression. The problem of course, is that in competition, it's only the first rep that counts. This means that you need to develop the ability to go "all out" on the first rep. Therefore, I recommend performing multiple sets of 1 with 50-65% of 1RM on speed training workouts, instead of sets of 2-3.

6) I believe a large part of the success experienced by lifters who train at Westside Barbell is the comraderie and esprit de corps of Louie's gym environment. After all, when you're serious about training, in most cases, there aren't a lot of people in your life who can relate on any level.

Thanks, and please enjoy the rest of the newsletter!

- Charles

PS: I've got a special announcement to make on Friday, so please keep an eye on your inbox!

The Devil Is In The Details: The Bench Press

by Jack Reape

Editor's Note: I first came upon this article in the archives at www.dragondoor.com (a great site with lots of valuable information by the way). I was so impressed with it that I wanted to share Jack Reape's insights with my subscriber list— CS.

I do not consider myself a great bench presser. I know a couple great bench pressers, and I assure you, I am not one of them. Like some of you, I want to be an accomplished bench presser. To do that you must be willing to work hard, pursue knowledge, do things you do not like, and pay attention to every detail of training and technique. I have learned much from reading, listening, asking questions, trying, verifying and failing. Many people's ideas, Like Pavel, Louie Simmons, Dave Ricks, the boys at Powerden, Bill Starr, Jesse Kellum, and George Halbert to name a few, have given me great ideas. I tried a lot of things and liked some. My goal is to stimulate your thinking, training, and results.

Technique. The BP is a multi joint exercise that uses most of the upper body muscles. There are probably better ways to isolate the pectorals, triceps, and deltoids, but nothing works them better in unison. BP is an ideal beginners' lift as it is not hard to do, just hard to do well. It is a lift people know, fun to do and train, and enormously more complex than I ever thought. Benching is taking a weight down to your chest, pausing for a moment, and then pressing back to lockout. The most important thing is the shortest distance between two points is a straight line-a stabilized straight line! Pressing the bar in an arc shaped path and letting it drift back over your face lengthens the trajectory the bar describes and puts unneeded stress on the shoulders. Get a wide grip and press straight up from your touch point to lockout. The widest grip you can legally use is best. If you are stronger close grip you should still change to a wider grip. No great bencher benches close grip in a meet. The wider grip recruits more muscles and shortens the distance. Close grip benching is a great assistance exercise, with a twist I will cover later.

Questions? I didn't think so. For most lifters, the touch point where the bar touches the "chest" is between the nipple line and the sternum. In my opinion, the heavier the bench shirt you use the lower the bar must go toward your feet. Bringing the bar down higher on your chest with the elbows at 90 degrees to the torso is a bodybuilder Bench Press, great for Flex Wheeler but not for you or I. While arching is what everyone wants to do, the bigger you are the harder that gets. Almost the same result can be gained by pinching the shoulder blades together, sticking out the chest, and not letting go of your air till lockout. Pavel's technique of twisting the fingers outwards when doing one arm pushups carries over well to benching, as does the idea of trying to bend the bar like you are breaking a broomstick and squeezing the knurling as hard as possible with your hands.

Twisting your hands like he says will keep your elbows in the proper position and under your wrists. If your hands are closer to your feet than your elbows, instead of straight up and down, your shoulders must do a front lateral while pressing! No lift for you! If your hands are closer to your head than your elbows, instead of straight up and down in line you are

doing a tricep extension. Great assistance move, bad technique, red lights for you! Lock up your abdomen, drive your shoulders into the bench with your legs like you were trying to slide yourself along the bench toward the uprights. Get yourself solidly set on the bench. Use shoes that will grip the floor well. Some lifters use scuba shoes or wrestling shoes or shoes with heels. I like an old Adidas basketball shoe with a solid sole and slight heel lift. Get a big breath of air then let some out. Do not let the rest of your air out until you have locked out. Air in your torso will keep your shoulders higher. Letting the air out of your lungs loses your tightness and lengthens your stroke. Make sure your shirt/singlet does not slide on the bench. A bit of chalk and a bit of sweat usually fixes this problem quickly .A good lift off is important; smooth and controlled is good! Make sure the spotter doing the liftoff knows what you want him or her to do! Do not set up too far away from the racks as the farther you are from the racks the harder and riskier the hand off becomes. Lower the bar slowly under control, flexing your lats on the way down (or "hardening your armpit"), pausing the bar momentarily at the bottom but not relaxing! Think of holding the weight a half inch off your chest-a good training technique BTW- then blast it off and drive it to lockout. While decline bench presses are not very useful in my opinion, the groove and feel of pushing toward your feet is a great one to understand and feel. Practice proper technique on every rep you do so it will become automatic. Fatigue and nerves will make your technique very ragged in a meet if you do not practice it constantly.

If you train and compete raw, you need to focus on the bottom of the bench press. You need a low gear to get that weight moving. Pause bench press is numero uno for this requirement. As a matter of fact, if you never use a shirt you should do pauses on almost all your bench sets. If you use a single poly shirt you still need that low gear but some speed work helps. A double or triple shirt that can stop the weight at your chest makes bench pressing a more speed focused lift. I like and use gear and am not interested in a gear debate. I only cover this stuff because mountain bike racing is not motocross. They are very similar but still different and must be approached somewhat differently.

Training. Siff says speed comes from strength. Simmons says speed bench with bands/chains year round. Siff says benching with bands is plyometric and I think doing plyos year round is a pec tear waiting to happen. Pavel recommends lots of low rep sets. My opinion (careful, I was wrong once several years ago) is that you build a base of strength with a large volume of paused BPs and tricep/lat hypertrophy, and then in the meet prep period you work speed, and lockout with special exercises that hit your sticking points. How you do this is really the hard question and depends on many factors-age, fitness, goals, sports background, injuries, size, sex, etc. For example a male 40 year old three lift drug free powerlifter with a challenging job would train a bit differently than a 21 year old male gymnast who wants to be a bench specialist while in grad school and is using steroids, and there would be differences again for a 16 year old HS female powerlifter with no sports background who plans on using no other lifting gear but a belt. Here would be good time for you to read/review the Number of Barbell lift section of my TNT article in the archives. I will assume you have read that and go on.

These examples I give are for reference and can and would be changed for each individual. Each of the three example lifters must build the start, lockout, and stabilization/assistance of the Bench Press. Each would use the paused bench press as the basic start exercise. The

experienced three lift Powerlifter would bench 2-3X a week and get 100 lifts in per week on average in the bench press/pressing assistance exercises. The gymnast might bench press/pressing assistance 2-4 times per week and get 150+ lifts in per week. The HS lifter might bench 2-3X per week and get in 30-50 benches per week. These reps would be in the 65-85% percent of 1RM range generally. See the Sheyko BP article in PLUSA for an idea how to set up your routine or the Smolov Routine in the newsletter archives for extended examples or go to www.worldpowerlifting.com, training section. This site has lots of good ideas and workouts to ponder and perform. This described the "prep" phase.

In the "contest" phase each lifter would go heavier and drop the volume 15-30%, but the Powerlifter would start mixing in some speed work with bands/chains and heavy rack work/board work, the Gymnast would focus on speed work with bands and getting used to his shirt in the partial and full range movements, and the high-schooler would do more below limit singles to get used to meet technique but avoid bands/chains. All three lifters would have to address lockout. Many sources point out the triceps must be trained very heavy to hit all three heads of the muscle. You won't get very strong doing pushdowns or kickbacks. A great and cheap device you can build easily is to put 2-5 2x6 boards of about 13-16 inches in length on top of each other (use "cull" wood from Home Depot, VERY cheap). This allows you to train very close to your max for reps in the close grip, medium grip, and/or wider meet grip partial range of movement, really hammering your triceps like nothing else. 3-5 sets of 3-5 reps is a good guide for these exercises.

You can substitute power rack work here but pushing from a pin in the rack is more prone to cause injury. It is hard to start your press in the right groove from a dead start (Why the DL kicks your butt!) and you can use less weight because there is no eccentric phase to build up tension in the muscle during the lowering of the weight to the board. An important concept is the key to the contest prep period You MUST use some 90% and above weights-weights that limit you to 3 or less reps-in the peaking period for the meet or test day. You CANNOT use 90% weights for very long. After much research and experimenting two workouts above 90% over the last 3 weeks running up to the meet works well, and the last week before the meet is a time to rest. My last workout is Monday or Tuesday for a Saturday Meet and is very brief and below 70% for limited reps, with minimal assistance exercises, if I do anything at all!

Assistance Exercises. Some bodybuilding exercises are useful for hypertrophy in the triceps, deltoids, and lats. Here is why benching is so much fun, proper training makes you grow! Bigger isn't always stronger, but usually it is! The fun loving, patriotic, mass quantity consuming Powerlifting crowd you are hanging with now never met a buffet that could not be cleaned out! Sufficient nutrients/calories combined with proper volume and intensity will build a lot of muscle. Sorry, you can't build muscle or your Bench Press on Tofu, Tuna, and steamed Veggies. Train! Eat! Rest! You get stronger at the buffet and in your bed, not the gym! Disagree? Test your bench after a good meal and a good nights sleep and a good breakfast. Now test your max after your full workout! When are you stronger? The point is if you want to be strong you will have to give up a bit of tripping the night fantastic, eat well, and limit the alcohol and forbidden dances of Love. Sorry, but consuming even 2-3 drinks lowers the testosterone measurably. I told you there would be things you would have to do that you would not like in order to bench big. Just a matter of priorities!

Dumbbell tricep extensions and skull crushers, if your elbows are OK, done after or alternatively with the board presses are helpful on bench days. The 10 sets of 5 is a great rep scheme here. These do not count as Lifts for the week. Stabilization is really the training of traps and deltoids. I am not a fan of lots of front delt work! Heavy Benching already can lead to shoulder impingement, a tendonitis condition in the front of the shoulder, so working rear delts with dumbbell bent flyes or rope pulls to the face is sufficient. External rotation is the one time where you will catch a Powerlifter using the cable machine, if they do not have a spring chest expander! That old device-or a heavy rubber band-is a great external rotation exercise. Higher reps are OK here. 3-4 sets of 10-12 reps. Slow and controlled reps are best for delts.

The Lat muscles are the key to Bench stabilization. Work pulldowns with various handles, pull-ups with various grips, and rows of different types. I have done 5 to 10 sets of 5 to 10 reps. Neither extension movements, delt nor lat work count as lifts for the week. Lats can be trained 3-4 times a week if you vary the exercises! Bill Starr was big fan of 40-50 reps per assistance exercise for 4-5 sets of 10, and Pavel likes 10 sets of 5. About 50 reps. Try it! If you really want to be a wild man try 7x7! Little bit beat? Cut it back! This where the Art of training becomes more important than the Science, when you have to make Micro adjustments to your Macro plan. Only you can make those calls. A hint-most people WAY over train the Bench Press assistance and under utilize the bench movement! The Gym Rat who does multiple sets of Flat, Incline, Decline, and Dumbbell Benches before starting the cable work and pec dec is not going to make the progress his $100K per year of drugs consuming bodybuilder Role Model promised. If you have problems at the bottom of the bench press and pausing your reps doesn't correct it, dumbbell flyes are a good remedy.

Cambered bar bench presses work well here also but be very careful to not go to far beyond your normal range of motion. Sticking one of those 2-5 board blocks you built for tricep work on your chest will allow you to control the range of motion using the cambered bar. I have rarely done these so I will not belabor this point. If you are pressing on the bench either Paused, with boards or Cambered Bar, count it toward your NBL-Number of Barbell Lifts. The Gymnast can do more and heavier assistance than the 3 lift Powerlifter, and a great deal more than the High School lifter. The Gymnast's background, lack of other lifts to train, low stress and extra rest, top of the line gear and steroid use would allow this extra work. The Powerlifter is limited by all the factors that assist the Gymnast. There is only so much recovery ability available from your body, so prioritize what is weak or lagging. Your chiseled delts will be of little comfort if you can't lockout a bench due to tricep weakness! The High School lifter is not ready for anything but the basic assistance and should focus mainly on the Bench Press itself until a groove and training base are built.

Last thing, Larry Pacifico says the best two ways to increase the bench press are to gain weight and do close grip bench press. Your bench is very affected by weight loss and gain, maybe more than the other two lifts. Good to keep in mind.

Good Luck!

Jack Reape is a Graduate with Merit of the US Naval Academy with a BS in Operations Analysis. He serves in the US Navy and competes locally and nationally when time permits. He is a multi time State, Region, and US Military National Powerlifting Champion.

Test Pilots of Triathlon Nutrition: The Eternal Search for the Bite Stuff

By Timothy Carlson

Think of them as the Wright Brothers of ultra-endurance nutrition, the Chuck Yeagers of high-stress, high-speed digestion, the Alan Shepards of gastrointestinal grace under pressure— the triathletes who became the guinea pigs desperately seeking fast food and drink. Triathlon, particularly in its Ironman form, opened a new frontier in endurance sports that had even more to do with the gut than guts.

While sports medicine studies in the mid-70's had focused on the nutritional demands of the marathon, with a two-to four-hour window, the eight to 17 hours of the Ironman triathlon created extreme physiological demands. Unprecedented calorie consumption collided with system stress that left the Ironman founders wondering if anyone could even survive. Soon, Ironman elite practitioners paid a high price— Julie Moss's epic meltdown in 1982, Mark Allen's bleeding stomach in 1986, and Julie Anne White and Chris Legh's loss of significant portion of their colons due to stomach shutdown in 1993 and 1997.

With those casualties in mind, the words of Dan Empfield, White's husband and triathlon equipment innovator, have strong resonance. "The Ironman isn't a race, it's an eating contest!" Not a contest to consume the most food, like that skinny kid from Brooklyn who ate 50 hot dogs. But the right stuff. An elusive, subtle, semi-scientific and often intuitive quest to wring performance from the human body.

Like Wernher von Braun crashing prototype rockets in the New Mexico desert, the early years of triathlon were filled with amazing gastro-catastrophes. In the inaugural 1978 Iron Man Triathlon on Oahu, former Navy SEAL John Dunbar's support crew ran out of water at the 17th mile and offered him beer. Soon, a dehydrated Dunbar was delusional and bouncing off parked cars.

Another early Iron Man competitor planned for steady beer breaks on the bike and thrived. Long-time Ironman competitor and commentator Bob Babbitt remembers some early extreme Iron-stomachs. "In the early days, all we knew was carbohydrate loading, so many crews loaded up on big loaves of Hawaiian sweet bread. They absorbed water like a sponge and bloated your belly like a blimp."

Babbitt also cites a reckless early ritual that today would not pass the IOC drug test. "In those days," says Babbitt, "there was a goofy combo [that] crews handed out at mile 20 on the run we called The Bomb—defizzed Coke, aspirin and No Doz. If your heart didn't explode, you could run a fast last 10km."

In the days before he gained nutrition savvy and became the first six-time Ironman Hawaii champion, Dave Scott was a carefree sophomore swimmer and water polo player at UC Davis. In an incident that may have influenced his conversion to a healthy diet, Scott finished a 9367-calorie caramel-covered caramel concoction called The Zoo.

“Afterward I felt inebriated and with the hormonal overload could barely walk home,” says Scott, who also noticed he felt bad and his swim workouts fluctuated wildly. “I was working out a lot and thought I could eat anything—one night I ate grilled-cheese sandwiches.”

The competitive fires that led Scott to the Ironman in 1980 also directed him to become a pioneer in multisport nutrition. While he later evolved to a more balanced dietary approach, in the beginning Scott was a strict vegetarian and pursued the prevailing high-carbohydrate-low-fat diet with a vengeance.

In the Beginning

After the first explosion of popularity, mainstream diet gurus saw the benefit of enlisting emerging Ironman stars in nutrition testing. “In 1984, Nathan Pritikin asked Dave Scott, Scott Molina and me to go to a lab in Davis, CA, to log blood samples, levels of cholesterol, body-fat percentage, then go on a Pritikin diet for 90 days,” says two-time Ironman champion Scott Tinley. “The Pritikin changed me a little bit, but Dave was already close to an 80-10-10 situation. Molina tried it for a few weeks, then went back to his Ding Dongs and Twinkies.”

Triathletes also served as the taste testers for the groundbreaking PowerBar.
“PowerBar was the first wave, says Allen. “It was the first serious food targeted to make you go faster in your race, and I hopped on the bandwagon. I tried it out a the season opener at Gold Coast in Australia. I saw other people do it, so I chopped it up into little pieces and put them on my handlebars, and they looked like warts. You paid 3000 bucks for a bike, then stick 20 warts on it. Perfect, eh? I shoved the little chunks into my mouth and spent the next 65 miles trying to swallow. It worked great when you’re stopped at the 7-Eleven and your heart rate is 70. But in competition when your heart rate is 155 and you need every bit of oxygen and your mouth and nose are blocked by this glob—sorry, PowerBar. That was out.”

Figuring it Out

Scott, who was seeking the perfect food for his training as well as his race day diet, set a trend by eating figs during races. “Bananas were popular, but they were cumbersome, and heavy on hot days taped to bike frames they became banana pudding,” recalls Scott. “Figs were nutrient dense, contained some water, would not break up and had a fair amount of calories. One race in the early ‘80’s, I ate 19 figs. I had a cast-iron stomach, but it felt like a knot by the end. Other people wanted to lynch me.”

“In the beginning, Dave was God and God ate figs in the Ironman,” says Allen. “So all of us mortals followed in his figsteps. We decided if it’s good enough for God, it’s good enough for us. Little did we know that a mortal can’t eat more than 14 figs at any one time.
“I calculated how many I needed for the bike ride. I had 50 of them stuffed in my

pockets, and I looked like a squirrel putting away nuts for winter. After fig number 14, the gag reflex started. If I'd eaten number 15, they all would have come up. Maybe God can take figs, but not us. That was the end of figs."

Responding to the need for carbs you could grab and digest in the heat of battle, honey and corn syrup next came to the fore. Triathlon clothing entrepreneur and early pro Emilio De Soto created a predecessor to the modern energy and drink in the early 1980's. "I used corn syrup, honey, bananas, salt tablets and salt and ground it up in a blender and put the mix in a traveling toothpaste tube and squeezed it to use in long races," he remembers. "That covered my fructose, potassium and salt needs."
At the same time, many triathletes were drawn to new-age, organic standards for food and drink. Colleen Cannon, an Olympic distance dominator and occasional Ironman champion, was among the innovators of this trend.

"In the beginning, I started on the Pritikin diet," says Cannon. "It allowed virtually no fat, an that was one of the reasons I got injured and let my immune system down at the end of my 1984 season." it was at this time that Cannon saw the value of increased amounts of good fats. "I did some things right—like starting to eat more butter instead of margarine—and some wrong. Like I tried an avocado sandwich with an Umebayashi plum, which was very salty. It worked well in workouts, but I tried it in an Ironman race and almost puked."

"Colleen used to talk to her food and bless it," recalled Tinley. "And before she would eat them, she would tell the fish or the chicken she was sorry. I though that was cool—adopting Native American practices."

Other innovators went counter to prevailing wisdom. "I bought rolls of Betty Crocker chocolate chip cookie dough," says former pro Mark Montgomery. "You sliced it up and it was a precursor to the Leppin Squeezy—fast glycogen. It felt decadent, but it tasted so damn good!" In the hellish furnace of an Ironman metabolism, pure sugar has had staying power. "I swore by strawberries-and-cream gummi bear candies," says 1994 Ironman Hawaii champion Greg Welch. Montgomery decided to buck the Dave Scott trend directly at Wildflower.

"My pre-race crash diet plan was to eat everything Dave Scott would not eat," says Montgomery. "Three days before the race, I started to wolf down bacon, sausage and barbecued baked beans. It worked! I set a PR of 4:16 and finished third." Montgomery also joined with training partner Paula Newby-Fraser in establishing a new tradition—the high-protein, high-fat loading dinner two days before Ironman Hawaii. "One year we ate the greasiest barbecued ribs we could find, baked potatoes covered with everything. Another year—meat-loaded pizzas and tacos," he remembers.

Few athletes plunged more wholeheartedly into the search for the competitive edge in nutrition than Mike Pigg. "We were all searching, and the process was a lot of trial and error," says Pigg. "In the early 1980s, most coaches and authorities were promoting a high-carbohydrate diet to build up energy. The more you put in your gas tank, the

further you could go. If 2000 calories was good, 3000 was better."

Pigg made an early pilgrimage to Davis to train with Dave Scott. "Before we left one morning, Mike got out a salad bowl and mixed three or four cereals into this huge breakfast," recalls Scott—who adds that Pigg felt "incredibly lousy for the first hour or two."

About 80 miles into the ride, Scott had "used up all my food trying to hang on to Mike. So we stopped at a convenience store. Mike was starving and went for chocolate milk and some Ding Dongs. I tried to be moderately healthy and bought a loaf of bread and ate 10 slices."

Fad Diets

By 1989, Pigg suffered a gastric breakdown of the bacteria in his stomach lining and was temporarily unable to compete in long-distance races. During this period, Pigg became devoted to healthy foods and would mix beet and carrot juices with garlic, trying to detoxify his stomach and rebuild the necessary digestive bacteria. By the early 1990s, Pigg signed on with coach Phil Maffetone and became a convert to the 40:30:30 diet, based on higher fat and higher protein. "One week Mike stayed with us, and he must have put three or four sticks of butter on his food that week—at least," says Jimmy Riccitello.

Another time Pigg bought a pound-and-a-half of ground turkey and mixed it up in a large patty with four or five raw eggs and mashed it into a gigantic patty two inches thick. "Mike pops it in a frying pan full of canola oil and put it on the grill for about a minute," continues Riccitello, "then he flipped it over and grilled it another minute and then he took it off. I said, 'Man you have to cook it!' Pigg said, I don't want to cook all the vitamins and minerals out of it, suck all the life out of it.' About 1a.m., I hear terrible moans and groans from the bathroom. When I open the door, there is Pigg, and it's coming out both ends, to put it politely."

There were other spectacular mistakes. Seven-time Ironman (not Hawaii) winner Ray Browning became intrigued by a new "high carbohydrate-electrolyte, all-in-one energy drink" by a new company called Ultra Energy. "I thought it made more sense to take it in liquid form," says Browning. "It also came with a pressurized bladder placed under the seat connected by a tube to the bars so you wouldn't spend energy to suck it in, and I decided to try it at Ironman Canada." What Browning didn't know, he says with a chuckle 13 years later, "was that in the heat of an August morning, it had a shelf life of about five minutes. By the time I finished the swim, it had gone putrid and even started to form an unbelievably disgusting mold. With my first sip of this cherry-flavored mess the pressurized blew up all over the back of my bike and my body, covering me with this foul, viscous syrup."

The Quest for the Holy Grail

“Seventeen to 20 years ago, athletes were warned not to take salt tablets,” recalls sports nutritionist Monique Ryan. “It was thought to cause stomach cramps.” The curve of salt loss intensified in the eight-plus hours of Ironman Hawaii.

“There was a big push to urge athletes to drink, drink, drink—it could never be enough,” says Maffetone. “The problem was, if athletes drank pure water, that led to hyponatremia [reduced concentrations of sodium in the blood], and if the concentration of carbohydrates was too high, the stomach would become overloaded and shut down digestion.”

After years of agonizing meltdowns, Scott Molina vowed to solve his problem prior to the 1988 Ironman Hawaii. A month before the race, he and wife-to-be Erin Baker went to Palm Springs, California, seeking acclimatization during 10 days of five-hour bike rides in 110-degree midday heat. “At Nice in late summer and in Palm Springs, I tested how much salt I could tolerate in my GatorLode and Gatorade mix,” he recalls. “I finally got it up to three teaspoons—about eight grams, in one water bottle. It was yucky. I added some salt tablets during the race. It made me nauseous, but I found if I washed it down with water, I could keep it down.” That year in Hawaii Molina started to cramp late in the run but held on for a two-minute win over Pigg.

The scientific pursuit of the right stuff mix of nutrition, hydration and electrolytereplacement was also crucial to Mark Allen’s success in Hawaii. In the spring of 1989, Allen went to Duke University and completed nearly an entire Ironman in Hawaii-like heat in the lab. Dr. Doug Hiller’s analysis of Allen’s sweat loss led to an adjustment in salt concentration and volume in his race drinks.

“The one thing that I had found that had enough sodium in it was Exceed, a mealreplacement beverage,” says the Grip. “I tried various flavors. Vanilla tasted like someone else’s saliva. That was out. But chocolate was delicious. It had sodium, protein, carbs and fat and seemed to work really well. You could use it right off the shelf and pour it into a water bottle and there you go—Ironman victory number one!”.
Forward Thinking

“We’ve made a lot of progress, but sports nutrition will never be absolutely solved,” says Scott. Science will long be accompanied by superstition, fads, intuition and inspired by mistakes. Just look at the Chinese distance runners of coach Ma Junren, who claimed to get their power from a fungus made from a powder ground from the carcasses of worms. Or what about the 2000 Olympic women’s marathon champion Naoko Takahashi from Japan who claimed to get her power and speed by consuming ground-up hornet stingers?

“We’ve come a long way in 20 years,” says Ryan. “Now we know to avoid the extremes of low-fat, high-carb diets and the extremes of the higher fat and protein diets. We’re getting better data and more solid research every year and refining our knowledge of crucial aspects of recovery.”

But they'll never nail it down to pure science. And that's why either the ego or the bodyimage
insecurity causes people to fork over billions of dollars per year to diet doctors, weight-loss clinics and a wide range of diet supplement conglomerates. How else to explain why 14,000 people signed up at $1000.00 a shot for Dr. Nicholas Bachynsky's weight-loss miracle dinitrophenol—also used as a weed killer. It's why Sue Osborn set a 35-39 age group record at Ironman Hawaii in 1993 that has lasted 10 years while consuming two Big Macs with cheese placed in her special needs bag.

Scott Tinley knows. "The great barrier for fast Ironman times in the 80's and 90's and even now remains nutrition," he says. "I remember doing Ironman New Zealand one year and getting off the bike and running an effortless 2:43 marathon and passing Ray Browning with a mile to go to win. In 50 Ironman races, it was the only effortless run I ever did. I was so excited, I sat down afterward and wrote down every single drop of fluid and food I ate that day. A month later, I duplicated it completely at Ironman Japan—and completely bonked."

The point is, says Tinley, "nutrition is an inexact science. The body metabolizes in waves, and waxes and wanes in a variety of different chemical balances on a daily, if not hourly, basis. What works this day or this week may not be the same the next day or the next week. The great paradigm with nutrition is— you always have a moving target."

Allen second Tinley. "For sure, the nutrition in one-day endurance events like Ironman has the biggest potential for improvement. Bike technology is pretty fine-tuned. Training protocols will continue to improve, but they are fairly dialed in. But race nutrition, which seems scientific, is still in a very archaic stage."

From the diet wars between quirky and idiosyncratic innovators and corporate behemoths with armies of scientific data to the evolution from backyard chefs to corporate research and marketing campaigns to the never-ending struggles between electrolyte-replacement drinks, energy bars and gels, the food wars go on. Surely, triathletes' chase for the ultimate gold-medal meal will endure as long as on the third Saturday of every October, on Kailua Bay, there are at least two triathletes with their toes in the water.

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"That Just Ain't Natural!" with Charles Staley

This month, I'd like to answer the most common question that is posed about this newsletter, which usually goes something like this:

"What the heck is *The Unnatural Athlete* all about?! I mean, first there's an article about how to improve your weight training by focusing on speed, then there's an article about how to take out an attacker without breaking a sweat. The next article is about how I can make twice as much money in half, the time...Charles, you need to focus on a common theme!"

OK, OK, I understand the confusion, but we're not going to change the way we write this newsletter, because in fact, we DO have a common theme: POWER!

Let me explain...

Speaking physically, "power" is work divided by time, where work is defined as MxD (mass multiplied by distance). So in other words, if you can pick up a heavy box and carry it up three flights of stairs, you did a certain quantity of work. But if your friend can get that same box up those stairs faster than you, he is more powerful.

Now, the interesting thing is, in everyday life, power means the same thing. For example, if you gross $45,000 a year working 40 hours a week, and your buddy makes the same income while working 50 hours a week, you have the power my friend!

We live in a World where resources (e.g., time, energy, money, knowledge, etc) are limited. Therefore, living life with maximum power becomes imperative if one wishes to accomplish as much as possible, with the smallest expenditure of resources.

For example, there are a lot of athletes and serious recreational exercisers subscribed to this newsletter. If you're one of them, don't skip past Jeff Smith's excellent articles on time-management for example. Because for many of us, time (specifically, a lack of it) becomes a significant limitation on your ability to execute your workouts with maximum effectiveness. If you can find ways to make more income in less time, obviously you'll have more time (and energy) for training.

I would also like to address the many executives and business professionals subscribed to this newsletter, many of whom are relatively new to the idea of intensive exercise. Your inexperience is actually a gift, because you are less encumbered by the plethora of myths and misconceptions that many experienced exerciser and athletes labor under. Here's an example of what I'm talking about: in business, it's intuitively obvious that you do not direct resources toward a task unless it has a specific purpose. However, amazingly, in athletic training, many, many people perform tasks for purely arbitrary reasons! For example, most exercisers could not begin to tell you why they perform 5 sets of 5 repetitions, or why they train three times a week, or why they do 4 exercises in a workout. They do it because they someone else does it, or because "that's the way I've always done it." When I show these same people methods of applying logic to these decisions, they're absolutely amazed.

In short, the essence of *The Unnatural Athlete* is simply to do everything right— how to do the most with the least. Efficiency. Now that you have a better handle on what we're all about, please enjoy this first issue of *The Unnatural Athlete*!

— Charles

Convergent Phase Training Revisited!

Convergent Phase Training (or CPT) is a three-day-per-week training program featuring a unique rhythm between two separate components ("core exercises" and "circuits") that allows the program to strike an optimal balance between continuity and variability. CPT is by far the most popular training program I have created, having generated scores of letters, phone calls, and e-mails since I first developed it a few years ago. What follows is a simplified version of the CPT program and three sample training cycles using the CPT model. Enjoy the program, and as always, you feedback is always appreciated!

CPT: The Nuts & Bolts

Training frequency is three times per microcycle. In the examples I provide in this article, a microcycle is one week.

Each workout consists of a "core" exercise, and a circuit. You'll use three core exercises and two circuits.

Core Exercise Selection

The core exercises are selected on the basis of "dynamic correspondence." This simply means that an exercise with good dynamic correspondence has good positive transfer to your sport or primary physical goal.

Note: The core exercises in the program provided may or may not have a high degree of dynamic correspondence to your objectives. They are provided for the purpose of illustration only. If you are a bodybuilder or an exercise enthusiast not engaged in any other sport, select three multi-joint exercises that represent a large percentage of the body's total muscle mass with minimal redundancy. One example might be the squat, pull-up and bench press. Another might be the deadlift, dips, and rows.

Constructing the Circuits

Each circuit represents half of the body's muscles. I designate muscle groups into circuits like this:

"A" Circuit:

1) Hamstrings
2) Lats / Traps/ Rear Delts
3) Triceps
4) Gastrocs
5) Rectus Abdominus / Trunk-Hip Flexion
6) Grip Strength (Wrist and / or finger flexion emphasis)

"B" Circuit:

1) Quads
2) Pecs / Front Delts
3) Biceps / Brachialis / Brachioradialis
4) Soleus
5) Obliques / Flexion-rotation exercises
6) Grip Strength (Wrist and / or finger extension emphasis)

Use the same circuits for four weeks, and then change them for each successive month. When choosing circuit exercises for the next month's circuits, base your choices on eliminating weaknesses. For example, if your chin-ups seem to be limited by poor bicep strength, choose exercises, training methods, and loading parameters that will be instrumental in addressing this muscle. Although I have relied mostly on "straight sets" (meaning, the same weight for each set) for the circuits presented here, there is no reason why you can't employ drop-sets, eccentric training, plyometrics, whatever you find to be effective. Be creative!

Converging Phases

The name "convergent phase training" refers to the fact that there are two separate rhythms (or "phases") that converge on regular intervals— in this case, every two weeks. Here's a skeleton outline of the examples I'm providing here:

DAY	**CORE**	**CIRCUIT**
Monday	1	A
Wednesday	2	B
Friday	3	A
Monday	1	B
Wednesday	2	A
Friday	3	B
Etc	Etc	Etc

As you can see, when using CPT, you train for a full two weeks without ever repeating the same workout. Yet at the same time, there is a significant amount of continuity. Another interesting aspect of CPT is the unique rhythm that takes place: muscles used in the three core lifts are trained three times on week one, and then only once on week two, etc. All other muscles are trained twice on week one, once on week two, etc. Shock followed by recovery. The way God intended it to be.

Weights, Sets & Reps

For core exercises, select a weight that allows at least 5 sets of 3 repetitions per set, but not more than 10 sets, performed within a 15 minute time-frame (warm-up sets not included). Using the same weight, simply perform as many sets as possible within 15 minutes, or until

you reach 10 sets. If you do manage 10 sets, increase the weightload by 5 percent for that exercise for the next workout.

For the circuits: You'll repeat each circuit 6 times for each one month cycle. Simply start with 4 sets of 5 repetitions for each exercise, and add one rep each time you repeat that circuit. This means that the sixth time you complete the circuit, you'll perform 4 sets of 10 on the sixth go-around. make sure that on week one, the 4 sets of 5 are pretty easy to complete, otherwise you'll never make it all the way to sets of 10! If sets of 5 feel too easy initially, just use the extra energy to focus on super-perfect exercise technique and on improving your ability to maximally accelerate on the concentric (positive) phase of each rep.

Exercise Descriptions

You'll find detailed descriptions along with photos for most of these exercises in the "Exercise Index" section of http://www.myodynamics.com. However, if you can't find a description for a particular exercise, please post a question in our online forum (http://www.myodynamics.com/forum/index.htm).

The Program

Here it is: a sample CPT program to get you started. If any of the exercises are unfamiliar or seem inappropriate or unsafe to you for any reason, go ahead and make the appropriate substitutions, or ask for suggestions at the forum.

CPT Summary Points:

• Train 3 days a week (M,W,F, or T, R, S)

• Each workout, perform a "core" exercise and a "circuit."

• After warm-up, perform your core exercise for 5-10 sets of 3 reps, using the same weight for all sets, as long as all sets are completed within 15 minutes.

• Then perform your circuit for the day. Using the same weight, start with 5 sets of 5 reps for each exercise, then add a rep per workout until you've reached 5 sets of 10 for each exercises.

EXAMPLE ONE

Week One

Monday:

CORE: Medium-Grip Flat Barbell Bench Press

"A" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Hamstrings): Lying Leg Curl
2 (Lats): Low Cable Seated Row, Close Grip
3 (Triceps): Lying Dumbbell Triceps Extension
4 (Gastrocs): Jumps in Place (5 reps with dumbbells, then 5 reps with bodyweight only)
5 (Rectus Abdominus): Ball Crunch
6 (Grip Strength): Straight Bar Reverse Curl

Wednesday

CORE: Chin-up

"B" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Quads): Right Lunge In Place
2 (Quads): Left Lunge In Place
3 (Pecs): 30-Degree Incline Dumbbell Press
4 (Biceps): Dumbbell Preacher Curl
5 (Soleus): Seated Calf Raise
6 (Obliques): Reverse Trunk Twist on Ball
7 (Grip Strength): Dumbbell Hammer Curl

Friday:

CORE: Half-Squat to Weightroom Bench (Touch only— don't settle on bench!)

"A" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Hamstrings): Lying Leg Curl
2 (Lats): Low Cable Seated Row, Close Grip
3 (Triceps): Lying Dumbbell Triceps Extension
4 (Gastrocs): Jumps in Place (5 reps with dumbbells, then 5 reps with bodyweight only)
5 (Rectus Abdominus): Ball Crunch
6 (Grip Strength): Straight Bar Reverse Curl

Week Two

Monday

CORE: Medium-Grip Flat Barbell Bench Press

"B" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Quads): Right Lunge In Place
2 (Quads): Left Lunge In Place
3 (Pecs): 30-Degree Incline Dumbbell Press
4 (Biceps): Dumbbell Preacher Curl

5 (Soleus): Seated Calf Raise
6 (Obliques): Reverse Trunk Twist on Ball
7 (Grip Strength): Dumbbell Hammer Curl

Wednesday

CORE: Chin-up

“A" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Hamstrings): Lying Leg Curl
2 (Lats): Low Cable Seated Row, Close Grip
3 (Triceps): Lying Dumbbell Triceps Extension
4 (Gastrocs): Jumps in Place (5 reps with dumbbells, then 5 reps with bodyweight only)
5 (Rectus Abdominus): Ball Crunch
6 (Grip Strength): Straight Bar Reverse Curl

Friday:

CORE: Half-Squat to Weightroom Bench (Touch only— don’t settle on bench!)

"B" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Quads): Right Lunge In Place
2 (Quads): Left Lunge In Place
3 (Pecs): 30-Degree Incline Dumbbell Press
4 (Biceps): Dumbbell Preacher Curl
5 (Soleus): Seated Calf Raise
6 (Obliques): Reverse Trunk Twist on Ball
7 (Grip Strength): Dumbbell Hammer Curl

Week Three

Monday:

CORE: Medium-Grip Flat Barbell Bench Press

"A" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Hamstrings): Lying Leg Curl
2 (Lats): Low Cable Seated Row, Close Grip
3 (Triceps): Lying Dumbbell Triceps Extension
4 (Gastrocs): Jumps in Place (5 reps with dumbbells, then 5 reps with bodyweight only)
5 (Rectus Abdominus): Ball Crunch
6 (Grip Strength): Straight Bar Reverse Curl

Wednesday

CORE: Chin-up

"B" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Quads): Right Lunge In Place
2 (Quads): Left Lunge In Place
3 (Pecs): 30-Degree Incline Dumbbell Press
4 (Biceps): Dumbbell Preacher Curl
5 (Soleus): Seated Calf Raise
6 (Obliques): Reverse Trunk Twist on Ball
7 (Grip Strength): Dumbbell Hammer Curl

Friday:

CORE: Half-Squat to Weightroom Bench (Touch only— don't settle on bench!)

"A" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Hamstrings): Lying Leg Curl
2 (Lats): Low Cable Seated Row, Close Grip
3 (Triceps): Lying Dumbbell Triceps Extension
4 (Gastrocs): Jumps in Place (5 reps with dumbbells, then 5 reps with bodyweight only)
5 (Rectus Abdominus): Ball Crunch
6 (Grip Strength): Straight Bar Reverse Curl

Week Four

Monday

CORE: Medium-Grip Flat Barbell Bench Press

"B" Circuit (1-3 sets of 5-6 reps per exercise)

1 (Quads): Right Lunge In Place
2 (Quads): Left Lunge In Place
3 (Pecs): 30-Degree Incline Dumbbell Press
4 (Biceps): Dumbbell Preacher Curl
5 (Soleus): Seated Calf Raise
6 (Obliques): Reverse Trunk Twist on Ball
7 (Grip Strength): Dumbbell Hammer Curl

Wednesday

CORE: Chin-up

"A" Circuit (1-3 sets of 5-6 reps per exercise)

1 (Hamstrings): Lying Leg Curl
2 (Lats): Low Cable Seated Row, Close Grip
3 (Triceps): Lying Dumbbell Triceps Extension
4 (Gastrocs): Jumps in Place (5 reps with dumbbells, then 5 reps with bodyweight only)
5 (Rectus Abdominus): Ball Crunch
6 (Grip Strength): Straight Bar Reverse Curl

Friday:

CORE: Half-Squat to Weightroom Bench (Touch only— don't settle on bench!):

"B" Circuit (1-3 sets of 5-6 reps per exercise)

1 (Quads): Right Lunge In Place
2 (Quads): Left Lunge In Place
3 (Pecs): 30-Degree Incline Dumbbell Press
4 (Biceps): Dumbbell Preacher Curl
5 (Soleus): Seated Calf Raise
6 (Obliques): Reverse Trunk Twist on Ball
7 (Grip Strength): Dumbbell Hammer Curl

EXAMPLE TWO

Week One

Monday:

CORE: Standing Barbell Military Press

"A" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Hamstrings): Back Extension
2 (Lats): Close-Grip Chin-Up
3 (Triceps): French Press
4 (Gastrocs): Donkey Calf Raise Machine
5 (Rectus Abdominus): Weighted Sit-Up
6 (Grip Strength): EZ-Bar Seated Wrist Extension

Wednesday

CORE: Low Cable Seated Row, Underhand Medium-Grip

"B" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Quads): Right Step-up
2 (Quads): Left Step-Up
2 (Pecs): 30-Degree barbell Incline Press
3 (Biceps): 45-Degree Incline Hammer Curl
4 (Soleus): Unilateral Seated Calf Raise
5 (Obliques): Russian Twist
6 (Grip Strength): Seated Dumbbell Wrist Extension

Friday:

CORE: Deadlift

"A" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Hamstrings): Back Extension
2 (Lats): Close-Grip Chin-Up
3 (Triceps): French Press
4 (Gastrocs): Donkey Calf Raise Machine
5 (Rectus Abdominus): Weighted Sit-Up
6 (Grip Strength): EZ-Bar Seated Wrist Extension

Week Two

Monday

CORE: Standing Barbell Military Press

"B" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Quads): Right Step-up
2 (Quads): Left Step-Up
2 (Pecs): 30-Degree barbell Incline Press
3 (Biceps): 45-Degree Incline Hammer Curl
4 (Soleus): Unilateral Seated Calf Raise
5 (Obliques): Russian Twist
6 (Grip Strength): Seated Dumbbell Wrist Extension

Wednesday

CORE: Low Cable Seated Row, Underhand Medium-Grip

"A" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Hamstrings): Back Extension

2 (Lats): Close-Grip Chin-Up
3 (Triceps): French Press
4 (Gastrocs): Donkey Calf Raise Machine
5 (Rectus Abdominus): Weighted Sit-Up
6 (Grip Strength): EZ-Bar Seated Wrist Extension

Friday:

CORE: Deadlift

"B" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Quads): Right Step-up
2 (Quads): Left Step-Up
2 (Pecs): 30-Degree barbell Incline Press
3 (Biceps): 45-Degree Incline Hammer Curl
4 (Soleus): Unilateral Seated Calf Raise
5 (Obliques): Russian Twist
6 (Grip Strength): Seated Dumbbell Wrist Extension

Week Three

Monday:

CORE: Standing Barbell Military Press

"A" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Hamstrings): Back Extension
2 (Lats): Close-Grip Chin-Up
3 (Triceps): French Press
4 (Gastrocs): Donkey Calf Raise Machine
5 (Rectus Abdominus): Weighted Sit-Up
6 (Grip Strength): EZ-Bar Seated Wrist Extension

Wednesday

CORE: Low Cable Seated Row, Underhand Medium-Grip

"B" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Quads): Right Step-up
2 (Quads): Left Step-Up
2 (Pecs): 30-Degree barbell Incline Press
3 (Biceps): 45-Degree Incline Hammer Curl
4 (Soleus): Unilateral Seated Calf Raise

5 (Obliques): Russian Twist
6 (Grip Strength): Seated Dumbbell Wrist Extension

Friday:

CORE: Deadlift

"A" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Hamstrings): Back Extension
2 (Lats): Close-Grip Chin-Up
3 (Triceps): French Press
4 (Gastrocs): Donkey Calf Raise Machine
5 (Rectus Abdominus): Weighted Sit-Up
6 (Grip Strength): EZ-Bar Seated Wrist Extension

Week Four (Remember, total volume should be reduced 50% from last week)

Monday

CORE: Standing Barbell Military Press: 1RM Testing, then max reps with 80%

"B" Circuit (1-3 sets of 5-6 reps per exercise)

1 (Quads): Right Step-up
2 (Quads): Left Step-Up
2 (Pecs): 30-Degree barbell Incline Press
3 (Biceps): 45-Degree Incline Hammer Curl
4 (Soleus): Unilateral Seated Calf Raise
5 (Obliques): Russian Twist
6 (Grip Strength): Seated Dumbbell Wrist Extension

Wednesday

CORE: Low Cable Seated Row, Underhand Medium-Grip

"A" Circuit (1-3 sets of 5-6 reps per exercise)

1 (Hamstrings): Back Extension
2 (Lats): Close-Grip Chin-Up
3 (Triceps): French Press
4 (Gastrocs): Donkey Calf Raise Machine
5 (Rectus Abdominus): Weighted Sit-Up
6 (Grip Strength): EZ-Bar Seated Wrist Extension

Friday:

CORE: Deadlift

"B" Circuit (1-3 sets of 5-6 reps per exercise)

1 (Quads): Right Step-up
2 (Quads): Left Step-Up
2 (Pecs): 30-Degree barbell Incline Press
3 (Biceps): 45-Degree Incline Hammer Curl
4 (Soleus): Unilateral Seated Calf Raise
5 (Obliques): Russian Twist
6 (Grip Strength): Seated Dumbbell Wrist Extension

EXAMPLE THREE

Week One

Monday:

CORE: Flat Dumbbell Bench Press

"A" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Hamstrings): Seated (Supine) Leg Curl Machine
2 (Lats): Left Dumbbell Row
3 (Lats) Right Dumbbell Row
4 (Triceps): Triceps Pushdown
5 (Gastrocs): Standing Calf Raise Machine
6 (Rectus Abdominus): High cable Crunch
7 (Grip Strength): Seated Dumbbell Wrist Flexion

Wednesday

CORE: Medium-Grip Pull-Up

"B" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Quads): Leg Press, Heels Elevated
2 (Pecs): 45-Degree Dumbbell Incline Press
3 (Biceps): Low Cable Curl
4 (Soleus): 1& 1/2 Seated Calf Raise
5 (Obliques): Twisting Crunch on Ball
6 (Grip Strength): Seated Dumbbell Wrist Extension

Friday:

CORE: Front Squat

"A" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Hamstrings): Seated (Supine) Leg Curl Machine
2 (Lats): Left Dumbbell Row
3 (Lats) Right Dumbbell Row
4 (Triceps): Triceps Pushdown
5 (Gastrocs): Standing Calf Raise Machine
6 (Rectus Abdominus): High cable Crunch
7 (Grip Strength): Seated Dumbbell Wrist Flexion

Week Two

Monday

CORE: Flat Dumbbell Bench Press

"B" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Quads): Front Squat (heels elevated)
2 (Pecs): Dips
3 (Biceps): Incline Dumbbell Curl
4 (Soleus): Donkey Seated Calf Raise
5 (Obliques): Reverse Trunk Twist on Ball
6 (Grip Strength): Preacher Hammer Curl

Wednesday

CORE: Medium-Grip Pull-Up

"A" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Hamstrings): Seated (Supine) Leg Curl Machine
2 (Lats): Left Dumbbell Row
3 (Lats) Right Dumbbell Row
4 (Triceps): Triceps Pushdown
5 (Gastrocs): Standing Calf Raise Machine
6 (Rectus Abdominus): High cable Crunch
7 (Grip Strength): Seated Dumbbell Wrist Flexion

Friday:

CORE: Front Squat

"B" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Quads): Front Squat (heels elevated)
2 (Pecs): Dips
3 (Biceps): Incline Dumbbell Curl
4 (Soleus): Donkey Seated Calf Raise
5 (Obliques): Reverse Trunk Twist on Ball
6 (Grip Strength): Preacher Hammer Curl

Week Three

Monday:

CORE: Flat Dumbbell Bench Press

"A" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Hamstrings): Seated (Supine) Leg Curl Machine
2 (Lats): Left Dumbbell Row
3 (Lats) Right Dumbbell Row
4 (Triceps): Triceps Pushdown
5 (Gastrocs): Standing Calf Raise Machine
6 (Rectus Abdominus): High cable Crunch
7 (Grip Strength): Seated Dumbbell Wrist Flexion

Wednesday

CORE: Medium-Grip Pull-Up

"B" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Quads): Front Squat (heels elevated)
2 (Pecs): Dips
3 (Biceps): Incline Dumbbell Curl
4 (Soleus): Donkey Seated Calf Raise
5 (Obliques): Reverse Trunk Twist on Ball
6 (Grip Strength): Preacher Hammer Curl

Friday:

CORE: Front Squat

"A" Circuit (4-5 sets of 5-6 reps per exercise)

1 (Hamstrings): Seated (Supine) Leg Curl Machine
2 (Lats): Left Dumbbell Row
3 (Lats) Right Dumbbell Row

4 (Triceps): Triceps Pushdown
5 (Gastrocs): Standing Calf Raise Machine
6 (Rectus Abdominus): High cable Crunch
7 (Grip Strength): Seated Dumbbell Wrist Flexion

Week Four (Remember, total volume should be reduced 50% from last week)

Monday

CORE: Flat Dumbbell Bench Press

"B" Circuit (1-3 sets of 5-6 reps per exercise)

1 (Quads): Front Squat (heels elevated)
2 (Pecs): Dips
3 (Biceps): Incline Dumbbell Curl
4 (Soleus): Donkey Seated Calf Raise
5 (Obliques): Reverse Trunk Twist on Ball
6 (Grip Strength): Preacher Hammer Curl

Wednesday

CORE: Medium-Grip Pull-Up

"A" Circuit (1-3 sets of 5-6 reps per exercise)

1 (Hamstrings): Seated (Supine) Leg Curl Machine
2 (Lats): Left Dumbbell Row
3 (Lats) Right Dumbbell Row
4 (Triceps): Triceps Pushdown
5 (Gastrocs): Standing Calf Raise Machine
6 (Rectus Abdominus): High cable Crunch
7 (Grip Strength): Seated Dumbbell Wrist Flexion

Friday:

CORE: Front Squat

"B" Circuit (1-3 sets of 5-6 reps per exercise)

1 (Quads): Front Squat (heels elevated)
2 (Pecs): Dips
3 (Biceps): Incline Dumbbell Curl
4 (Soleus): Donkey Seated Calf Raise
5 (Obliques): Reverse Trunk Twist on Ball
6 (Grip Strength): Preacher Hammer Curl

Conclusion

After each one month week cycle, take stock of your strengths and weaknesses, and make sure that the weaknesses are addressed in the next cycle's exercise selection. Happy training!

The Neuro-Biomechanics of Maximum Velocity

by Richie Mercado (originally posted to the "Supertraining" e-group— for details, please see: http://www.yahoogroups.com, and search for "Supertraining.")

Editor's Note: Loren Seagrave has coached several world class sprinters and hurdlers over the past decade and a half. Loren's clients include World Record holder Donovan Bailey among others. The following is a detailed summary of a presentation Seagrave made to a group of 80 coaches at the NACACTFCA Congress in Costa Rica in October 1998, where he focused his remarks on both the importance of coaching skills and attitude, and also the specific neuro-biomechanical principles that coaches must take into account when training their athletes to develop speed.

Loren's emphasis on the importance of quality and his application of project management to training are quite consistent with my own approach to training. You're not a sprinter, you say? Read this anyway— there are some absolute jewels in the following paragraphs...

Loren Seagrave began by describing his recent experiences as the national sprints/hurdles coach in Thailand. In his time there he gave six coaching seminars. The question asked most by coaches was: What about sports psychology? He would respond, "Psychology for the athletes or the coaches?" The beliefs a coach has are often imparted to the athlete, and while this should be a good thing, too often it is just the opposite! In Thailand, the coaches have always said that Thai runners are too short to run fast, the athletes are lazy and the facilities are poor. That is exactly what Thai athletes learn! No wonder they continue to have low goals and little success. The coaching philosophy must be positive! Then you can get athletes to have and attain specific skill goals and enhance their performance.

He posed the question: how many people can wiggle your ears? Who taught them? No one— they are self-taught! A person probably did not set out with the goal of ear-wiggling, but accidentally discovered this talent, as do many people who learn particular skills. Seagrave's belief is that most of the fastest people in world have accidentally discovered how to be fast, and very few have been taught to be fast! Many coaches believe that an athlete cannot improve speed (Football coaches especially), but he believes that everyone can be taught how to run faster! In this respect, Track & Field coaches can be so valuable to other sports with their special expertise.

Seagrave then called on audience participation: in a seated position he had the participants place their feet flat on the ground, place their hands on their knees, and tap their toes on the floor together in rhythm as fast as they could for 10 seconds. (The audience then performed this exercise). He then described what the coaches were feeling: at "go" they were busting it, but before 5 seconds, they lost some coordination or slowed down to keep both feet tapping together; at 7-8 seconds the speed really slowed down, and before the 10 second signal, there was some shin tightness or pain!

The point? It does not matter how strong one is, no strength would help to do that skill faster or better. So strength is not the key. Speed is a skill: just like any other skill, it can be

improved. Any coach can make you tired— but that is not the purpose of training for speed; the purpose is to become faster! A coach must apply a systematic approach to improvement. There is also a profound difference between coaching and training.

Coaching vs. Training

Perhaps if the word "Teaching" is substituted for "Coaching" the important differences will become more clear. Training is developing the physiological qualities through work. Coaching is teaching! But coaches cannot just teach during certain times of the training. Coaches must be present during all of the preparation, drills, and training to ensure that the athlete is performing them well at a very high level. The coach should empower the athlete with the knowledge and the tools to become more self-sufficient as they develop.

Seagrave said that he has four new athletes with an average age of 33 years. He tells them that if they do not understand why they are doing something in training, they are a fool not to ask! An athlete should understand how every component of training is going to help them achieve their ultimate goal! The more they understand, the better the compliance with the training program, and the likelihood of excellent training is increased! Athletes also make excellent peer coaches in a group!

It is a total reclamation project when a coach starts with a new athlete: the coach must help the athlete unlearn old bad habits and relearn proper patterns from scratch! He noted that his recent experiences as the speed development coach for the Atlanta Falcons of the National Football League have demonstrated this clearly. Football players, like any athletes, go through four stages when learning a new skill:

First Stage: Unconscious Incompetence

The athlete is not thinking because they have never been told to think about anything, and is not very good at new skills. He said that he tells the football players that it is better to look foolish in front of your teammates in practice and get better at the skills than to get embarrassed on Sunday in front of 80,000 people and a TV audience! In this stage, the coach must convince the athlete to lose the inhibitions to looking foolish.

Second Stage: Conscious Incompetence

The athlete knows what to do but has not mastered the skill; they consciously try to execute it, but are not very good at it yet.

Third Stage: Conscious Competence

Athletes very quickly progress to conscious competence, where they are skilled but only with conscious effort; they cannot do it automatically and mindlessly. In this stage, unconscious action returns one to previous bad habits. The example Seagrave gave was someone trained in the martial arts would, when confronted by an attacker, most likely revert to ugly, unskilled fighting habits when in this 3rd stage.

Fourth Stage: Unconscious Competence

The skill is automatic and performed perfectly with no conscious effort. Attainment of this level takes not only practice, but mental imagery and rehearsal. It can take up to 500 hours of practice to achieve unconscious competence with a skill!

With amputees there is something called the "phantom limb phenomenon." Someone who has lost a limb feels as if it is still there; all sensory receptors are still connected to the brain despite loss of the limb; it can take up to 500 hours before the brain figures out that these are false receptions! What this means for coaches is not necessarily 500 hours of skill work on the track, but mental rehearsal and imagery practice of a skill counts to help reduce the time to attain unconscious competence!

With respect to skill development and ultimate performance enhancement, Seagrave stressed that coaches must develop a mission statement for their athletes. This statement should pinpoint what the
athlete must try to do every day to reach intermediate and long range goals. An example of a mission statement for a Sprinter/Hurdler might be:

Sp/HH Mission Statement:

1. Reduce the time needed to put the required force into the ground by 0.005 seconds

2. Reduce the time needed to recover the leg through the required range of motion by 0.005 seconds

These may sound like modest goals, but saving 0.005 seconds on the ground and 0.005 seconds in the air saves 0.01 seconds per stride in a 50 stride 100 meter race! That means the athlete has saved 0.5 seconds! What athlete would not want to drop 0.5 seconds off their 100m, 100 Hurdle or 110 HH time? If one computes this out for other distances, here are the results:

0.2 seconds in the 40 yard dash (distance most used in Football)
0.5 seconds in the 100 meters
2.5 seconds in the 400 meters
Marathon: 3-5 minutes!

The big question is: How can this be accomplished?

There are four different ways:

1. Apply greater force;
2. Apply force in less time;
3. Apply force in the proper direction;
4. Apply force through the proper range of motion.

Objectives:

1. Apply greater force. Should this be done simply by hypertrophy or non-traditional recruitment of greater number of motor units? Remember the toe-tapping principle? Motor unit recruitment and inhibiting the inhibitors is the answer— coaches and athletes must get rid of the speed governors! This is just like the little old lady stories about grandmothers who lift the car off of the person who is trapped: all of the inhibitory overrides through the central nervous system (CNS) have been removed and all muscle fibers are recruited! Massive injury may and probably will occur to the little old lady, though! Coaches can teach athletes how to reach deeper into their power stores and allow them to feel competent and that they have a high level of ability!

How competent do young hurdlers feel staring down that long line of 10 hurdles? They will be guarded and reserved. Training must allow them to develop a competence above their performance: teach for success

2. Athletes must learn how to apply the force in less time! An example was demonstrated by Seagrave: place the hand palm down on the table and raise and tap the index finger on the table as hard and as quickly as possible one time. Then pull the index finger back with the other hand and let go! The stored elastic energy— stored in muscle and tendon & fascia surrounding muscle— provides a greater force in less time. This is the stretch-reflex principle of muscular contraction. Muscle contraction alone is severely limited due to restraints of speed of contraction, but this elastic stretch-reflex helps make up for lack of fast twitch fibers, too.

3. Athletes must apply force in the proper direction. Forces must be forward and backward, not side to side, but without the braking forces that are often applied by athletes reaching with the touchdown too far forward of the center of gravity, resulting in loss of velocity and force.

4. Athletes must apply the force through the full or optimal range of motion. As speed increases, force on the ground is applied over a smaller range of motion than during acceleration.

Mann pointed out that the angle on knee and hip extension at maximum velocity is smaller in elite class sprinters. The goal is to apply the necessary force in as small a time as possible and a thus the range over which it is applied is reduced at maximum velocity.

If Maximum Velocity = Vmax; Stride Length = SL; and
Stride Frequency = Sf, then: Vmax = SL x Sf
Perhaps it would read better as: SL = Vmax / Sf

In other words, the faster one travels, the further one flies through the air! The traditional focus was on stride length and the concept that more strength = a longer stride. But it is

coordination that is the limiting factor, and more strength does not necessarily do it, as demonstrated by the toe-tapping.

SL is concrete as a value, so coaches have liked to use it, but Sf is very nebulous, confusing, and more abstract to many coaches. Mann and other researchers and coaches feel that stride frequency is the more important component.

Stride Length

Take a young Costa Rican sprinter and say, "Run with long strides for coaches." She would probably exaggerate her strides to please the command of the coach. She would increase her actual SL from the toe of the right foot at takeoff (t.o.) to the toe of the left foot at touchdown (t.d.). This is the simplistic concept many athletes have of stride length. But SL is better understood in relation to the athlete's Center of Gravity (COG), and the distance the COG travels from t.o. to t.d. is used to figure the actual SL.

The longer the distance the athlete's body travels while on the ground, the more time is spent, and the slower the Vmax. The relationship between ground and air distance for COG should be long air distances relative to ground distances! Change how the athletes look at SL, maybe by utilizing the concept of effective SL: the distance the hip travels through the air in a stride. The goal is big air distance and small ground distance. Therefore, during acceleration runs and buildups, force should be applied into the ground with the goal of projecting the hips forward as far as possible.

Stride Frequency

Ground Time (GT) + Air Time (AT) = Stride Time (ST), or the time it takes to execute one stride. Here is the data for elites: it is not uncommon for GT to be 0.09 seconds and AT to be 0.11 seconds = ST of 0.20 seconds.

Therefore: 1 second / 0.2 = 5.0 strides per second. 4.8 - 5.2 strides per second is the range for elite sprinters. Young athletes' values are: GT = 0.12 seconds

In other words, the force applied into the ground at Vmax is virtually identical in relationship for a slow High School boy and an elite male sprinter, so what is the difference? Time! Elites put the same force into the ground in less time and the hips project forward a farther distance.

AT = 0.13 This is lower due to lack of skill and motor coordination.

Sf = 4.0 strides per second. It is not strength that distinguishes elite sprinters from average ones, but efficiently reduced ground times due to enhanced skill and motor coordination.

Videos of High Level Sprinting

Loren Seagrave then showed some videos of sprinters to focus on aspects of sprint mechanics. The first example was of Andre Cason one week prior to 1992 Zurich meet. He

said that most people would see a little short guy running fast! Coaches and observers do not have their minds ready to analyze and break down the key components at regular speed, so he froze certain frames and slowed down other parts.

Important in understanding sprinting are the Cyclical Movement Phases: these occur over and over and over again throughout the course of a race. This is much different from an acyclical movement; the quality of each one of the phases of the movement depends on the quality of the phase that precedes it. The ground phase is the most important, yet the quality of the ground phase is determined by all phases that come before it!

1. Residual Phase— from the moment the toe leaves the track (T.O.) until the thigh begins moving forward in recovery.

2. Recovery Phase— from the moment the thigh begins moving forward until the thigh stops (blocking)

3. Transition Phase— from the moment the thigh blocks until the thigh begins to accelerate in a negative direction.

4. Ground Preparation Phase— from the acceleration of the thigh in a negative direction until touch down (T.D.).

5. Frontside Ground Phase— From the instant of T.D. until the COM is over the base of support (contact point of foot).

6. Backside Phase— from the midstance of support over the foot until the Takeoff (T.O.) into the next Residual Phase.

Vital to the development of maximum velocity sprinting skills is a proper understanding by coach and athlete of the following: there is a big difference between quality and intensity. Intensity is the % of maximum, say 90% of Vmax (90% of 10 meters per second = 9 meters per second). Quality is a measure of the percentage of perfection— even if not done at 100% of intensity!

There is no excuse to do any work at less than 100% of quality, no matter what speed or intensity.

The practical applications for coaches and athletes developing the appropriate skills in each of these phases include neuro-biomechanical cues to allow for proper positioning and muscular response in the cyclical phase.

The prime example comes in the transition into the Residual Phase, where the brain must send the message to dorsiflex the foot before T.O. into the Residual Phase. German studies have shown EMG messages occurring while the foot is still in contact prior to T.O. At T.O. there is stored elastic energy if the foot is dorsiflexed, thus reducing the amount of time

required to recover the leg (i.e. get the thigh and leg moving forwards sooner after T.O. to save time in the Recovery Phase.

The cue for therapists when reteaching someone to walk is not to lift the knee, but lift the top of the foot! This evokes the Œ'triple response'Œ; by curling the toe up (lifting the top of the foot) the knee and hip also respond! Those with too pronounced backside mechanics and slow recovery do not send this message of dorsiflexion soon enough. Since recovery requires velocities of over 400 degrees per second, the smaller muscles must do it, not the larger ones.

The Gastrocnemius (begins above the knee and goes down to achilles) becomes an extremely fast knee flexor! Joint position dictates muscle recruitment (this is the Speed Dynamics principle), with dorsiflexion of the foot and other joint movements. If one raises their arm and holds their biceps, then rotates the palm, it is obvious that pronation turns on, and supination turns off the biceps (this is why it is easier to do closed-grip rather than open-grip pullups).

In cyclical motions, part of time muscles must contract, and part of the time they must relax. Hip extension from ground contact through the Drive Phase is vital, and requires hamstring contraction. If the hamstring contracts during the Recovery Phase then it does not have time to relax, and the result is either premature fatigue or worse, injury! By reducing the moment of inertia through dorsiflexion of the toe, then Recovery is quicker and allows the hamstring to relax and recover for the next contraction during the Drive Phase.

When young people learn to bat in baseball and they swing the bat too slowly to hit the ball, the appropriate adjustment is to choke up on the bat and thus be able to swing faster. If the length of the leg is shorter, then it too can swing faster! The same principle also works in sprinting. Just before the Transition Phase— when the thigh blocks— coaches will often observe athletes floating in the air in a blocked motion. The legs work in concert and in opposition, so a blocked leg cannot go down until the opposite leg begins to move forward— in other words, they need to work on the Recovery Phase to enhance the Transition Phase! Coaches can drill athletes to use a maximum acceleration of the hip flexors and a maximum deceleration of hip extensors by means of a fast leg
drill.

Coaches and athletes must understand and identify key regulatory factors that are going to limit performance and develop learning and skill routines that will enhance sprinting skills. In this fast leg drill, the cues are for the athlete to get the ankle cocked and step over the opposite knee to thigh block, then accelerate the thigh backwards into extension. It must be a short lever: shorter = faster!

Athletes can control when they send the neurological message to the quadriceps to extend the knee. Insure that the quad muscles stay relaxed, and remember that the lower leg stays in the same position and neither adds to length or mass of the leg lever. Sprinters should first accelerate the long lever, then accelerate this long lever against the ground by contracting the quadriceps. According to Mann, top sprinters maintain a lower angle longer, thus maintaining greater speed at the knee and foot going backwards. There are also smaller

distances from the COG to TD in elite sprinters; beginners have bigger distances, thus creating greater breaking forces and loss of Vmax with each TD.

The cue should be to keep the ankle cocked (dorsiflexed) thus preparing the Gastrocnemius and Soleus muscles for contact. This muscular resistance upon TD will reduce amortization (collapse and loss of energy) prevent the toe pointing down, which tends to place TD even farther in front of the COG.

The stretch reflex from dorsiflexion turns the ankle joint into a mechanism akin to the horse's fetlock joint: no muscles cross the joint, just a thick non-elastic ligament. The gastroc-soleus-Achilles complex in humans stores energy and projects us forward more quickly, minimizing amortization.

Another cue to look for as a coach is the angle between the thighs at the moment the foot touches the ground. The knees should be at least together: an excellent measure of quality and perfection of leg recovery mechanics. If there is light, i.e. some angle between the legs at TD, then a forward TD and braking is occurring, thus Vmax is reduced. In drills, sprinters should shift the hip forward— this avoids stress on the ham from hip back. The shoulders should remain directly above the hips, and the athlete should use the lower two abdominals to stabilize the pelvis (the upper four are used for breathing). This is a skill, and like any it can be unlearned and overridden by bad technique!

The sprinting action can be practiced in a Whole Method by maintaining a stable and upright torso, then dorsiflexing the foot (thus initiating the triple reflex of the ankle-knee-hip joints), then drive the thigh down and grab back into the ground and end up tall with the hip over the knee. Excellent strength exercises that will enhance the specific strength of the sprint cycle are squats, lunges, stepups, and bounding.

In sprinting, arms are like operating a vehicle on a one way street— they only drive one way— backwards! The arm action should take place in a loose 90% angle, with the athlete driving the arm back to store elastic energy in the shoulder and biceps.

Do not paddle with the hand palm-down, because it will relax the biceps!

Some important drills to teach sprinting skills include:

Ankling— maintain body position (posture) and dorsiflexion(keep the bottom of the foot pointing down to the track and do not push from the ankle) while stepping over opposite ankle!

Cue— tie your big toe up to your knee joint! use tape and FEEL the proper movement! There may be a problem: the new, more optimal way does not feel right, but it is vital to feel it anyway.

Butt Kicks— dorsiflex ankle, use gastrocnemius as the knee flexor (initiate the triple flexor response), preserve good body position and proper pelvic tilt, crash calf into ham and see

knee move forward ever so slightly as knee is flexed. One athlete described it as trying to comb their hair with their spikes!

“A” Series— dorsiflex ankle (initiate the triple flexor response) and block thigh, then accelerate thigh back down towards the ground.

Stress Free Success with Jeff Smith

"Big Rocks"

As you know, one of the primary beliefs we operate with in this program is that the primary purpose of your practice is to fund your personal life.
The concept of "Big Rocks" helps you put this belief into practice.

Dr. Fred Grosse originally introduced me to this concept and it has since become one of the most important building blocks of the "2X+1" process. A story will help you quickly understand this concept:

Many years ago, there was a group of disciples who had gathered to learn from their teacher, reputed to be one of the wisest men in the land. To begin their lessons, their teacher told them to sit in front of him. He had a glass bowl and began filling it with rocks. He then asked the class if it was full.

They said yes.

He ignored them and poured in some smaller pebbles until the container looked full and asked the same question again.

The students said yes again.

This time, he rolled his eyes at them, and began pouring sand into the container until it was full to the top. He then asked the class if it was full now. By this time, the students were catching on and they weren't so quick to answer yes. The teacher smiled and poured a glass of water into the bowl.

Now the bowl was finally full. He looked over at the students and asked them what lesson they'd learned. One of them piped up, "There's always room for more." Other voiced similar answers.

But none saw the real lesson the teacher was sharing with them: "If you don't put the big rocks in first, you'll never have room for them."

That one sentence explains why most entrepreneurs and other professionals never achieve their biggest personal goals. As the story so clearly illustrated, you MUST put your Big Rocks in place first before all the other small stuff. What are Big Rocks?

Big Rocks are your biggest and most important PERSONAL dreams and goals.

Why PERSONAL and not professional? It's our personal goals that really motivate us to take action. They are the ones we can become emotionally involved with. Think about it for a minute: is it more motivating to be shooting for building your dream house on a lake and

taking a trip around the world or to make a few more sales at the office? Unless you're a screwed up workaholic, I think I know the answer.

Our Big Rocks (personal goals) give us a REASON to go out and achieve our business goals.

They are the FUEL that keeps our business fire burning when things get tough or don't go exactly as we plan. And the Big Rocks are the things we'll look back on in 50 years and say, "Ya know, that was one of the neatest things I've ever done in my life."

Why is it so important to identify your Big Rocks BEFORE you start working on your business goals and action plans?

Think about this for a minute:

What causes you to take action?

If you're on track with your thinking, you'll realize that you take action when you become emotionally involved with an idea.

In other words, emotions are the fuel that drives us.

Big Rocks are the personal goals that ignite our emotions and harness their power in helping us create the lifestyle of our dreams.

They are the REASON WHY we make changes in our business. The REASON WHY we stay focused, quit procrastinating, and implement all the 2X+1 strategies.

They are the real REASON WHY we're working in the first place.

And, they are the REWARDS for completing our work successfully.

Once you identify Big Rocks that you're passionate about and that get you emotionally involved with them, you'll find your focus increase dramatically; procrastination will virtually disappear from your life; it will become far easier to stay on track to implementing the practice-growth strategies you'll learn in this program; and suddenly you'll find yourself jumping out of bed in the morning, totally excited about the life you are creating for you and your loved ones.

It's CRITICAL that you identify exciting, compelling Big Rocks to give you a REASON to earn more money in your practice. Here's an example of why:

Two people come to us. Both say they want to earn $1,000,000 this year. We ask them why.

One says, "Oh, I'd just like to be a millionaire." The other one says, "Well, my daughter was just diagnosed with a serious disease and to give her 1st class medical care will cost me more than $250,000; then, when she's well again, I want to take her and my spouse on a first-class

trip around the world to celebrate; and I want to put all the money back now that she'll need to go to any private college in the country that she wants."

Which one of them do you think is more likely to stay on track to implementing the 2X+1 strategies to grow their practice? Which one will procrastinate less? Which one will be more passionate about touching others' lives with the services they provide?

The one who just feels like being a millionaire… or the one who MUST become a millionaire to pay for the Big Rocks of 1st class medical care for their daughter; a first-class vacation around the world; and a private school education for their daughter?

I think you know the answer… and that explains why identifying the Big Rocks that move you is so important.

On the next page are some examples of Big Rocks to get you started…

Examples Of Big Rocks:

Taking your family on a trip to Disney World- preferably first class!

Riding in a gondola down the waterways of Venice with your loved one

Watching Tiger Woods play in a major tournament— or better yet, playing right along with him!

Playing golf at Pebble Beach

Breaking ground on your dream home

Bench pressing 400 pounds

Losing 15 pounds or having your bodyfat measure less than 10%

Donating $10,000 to your favorite charity or religious organization
Giving a scholarship in your name to a worthy student

Flying to Paris for lunch— just because you feel like it!

Taking your three best friends out to your favorite restaurant as your treat to them

Freeing up your schedule so your entire family can have dinner together every Sunday night

Flying your parents in as a surprise for your kid's birthdays

Volunteering to teach classes in a Third World country— or to help them build new homes

Driving your brand-new Jaguar XK8 off the show room floor— with it paid for in cash

Watching the sun rise over your cabin in the mountains of Colorado

Enjoying a long weekend being pampered at a spa like Canyon Ranch or Miraval

Racing Indy 500 cars in a race car driving school

Piloting your own plane (or maybe taking up one of the MIG fighter jets you can rent for a day)

Hot air ballooning or skydiving

Fly fishing in Montana

Writing the first page of the novel you've always wanted to create

Taking a week off to do nothing but lounge around and relax

Key Points For Choosing The Proper Big Rocks:

• They must be PERSONAL in nature

• They should be things that get YOU excited and emotionally involved

• Big Rocks can be anything that YOU would enjoy— they don't have to be huge, expensive goals— they can be very simple and personal, like having Sunday dinner with your family

• They must be SPECIFIC (in other words, the Jaguar XK8, not just "a car;" or playing golf at Pebble Beach, not just any course.)

• When you look at the Big Rocks you write down, your heart should open up and you should feel truly excited about being about to experience them.

DURING THE PAST 11 YEARS, Jeff Smith has developed an international reputation for helping entrepreneurs multiply their profits in very short periods of time with his proprietary "2X+1 Lifetime Profits Process" which almost instantly converts your current clients into a lifetime stream of profits for you and your company.

Smith has personally coached more than 1000 CEOs, business owners, sales professionals, and doctors across North America, Canada, England, and Australia to help them create the business and lifestyle of their dreams.

A frequent guest on radio and TV talk shows nationwide, Smith is also the creator of the Stress-Free Success System, The 2X+1 Mastermind Coaching Program, as well as the author

of Stress-Free Success, Focus On Your Dream, and numerous other books, manuals, and special reports.

Top entrepreneurs and sales organizations from around the world currently hire him to speak at their functions, as well as for private consultations to help them devise new marketing and business growth strategies, integrate their business with their personal life, and lead a healthy, balanced, stress-free lifestyle.

Jeff is available for keynote addresses, private consultations, marketing consulting, ongoing group and leadership coaching, as well as teleconferences, live workshops, and seminars.

He can be reached directly by emailing him at stressfree@lvcm.com or writing to him at Jeff Smith, Center For Personal Excellence, 1001 Eaglewood Drive, Las Vegas, Nevada, 89144

Q&A

Q&A With Coach Staley

Question: Coach, quick question: I love the EDT workouts but wonder why you don't have any exercises for the shoulders included. Delts are a weakness for me, and since my arms USED to be a weakness, I'm begging you for an EDT shoulder workout!

Thanks, and keep delivering the great workouts!

— Brad Shofeld

Answer: Hey Brad, thanks for your nice comments regarding EDT. Here's the deal on delts: My position is that the overwhelming majority of trainees fail to appreciate the amount of work their delts are subjected to through pressing and rowing movements. The delts really aren't prime movers in most scenarios, but rather, synergists that assist the pecs and lats. So in most cases, I prefer to challenge the front delts through bench presses (and related exercises) and let rowing movements take care of the rear delts. Now, let me make an important point here: just because your rear delts aren't the size of cantaloupes doesn't mean they aren't being trained! A lot of people simply don't have the genetics and musculoskeletal leverages to develop the huge delts you see on some elite level competitive bodybuilders.

Question: I am a boxer/thaiboxer training for explosiveness. I have some extra dough, so what do you think I should buy? The X-vest, some more jumpstretch bands (I already have 4 pink and 2 blue), a nice medicine ball, Chek's Tornado ball, or should I stock up on post workout drink? Thanks.

Answer: Listen, any and/or all of the above can be very useful. However, what's even more likely to be useful is standard strength training performed with barbells and dumbbells. Why? Because your sport itself involves drills and activities which are highly conducive to developing the "speed" aspect of the speed-strength equation. Therefore, you should consider supplementary exercises that will target the strength component of that equation. Emphasize only a few global, multi-joint exercises (squats, bench presses, rows, etc.), heavy (but manageable) weights, performed for 3-6 sets of between 2-4 repetitions. As a final bit of advice, try to perform these exercises soon after your martial arts drills, so that your subsequent martial arts sessions is performed with a "fresh" body. In other words, when you plan your weekly schedule, try to position your martial arts sessions (not your strength sessions) at the times when you are the most recovered. I hope this gives you food for thought…

Question: I am about to go back to the gym and start working on getting back into shape. At the time I stand about 6'0 and weigh 275. I am hoping to get down to like 225-230 over the next few months. My question is, what do you feel is the best approach to do this? Should I go low carbs high protein high smart fat, or should I keep the ratios in a standard like 25% carbs, 60% protein and the rest smart fats?

In the past I have done low carbs (kept carb intake below 100 grams for 6 days with one cheat day). It worked well (I went from 280 to 240), but at times, I felt my workouts were rather sluggish, and at times I was moody as well. This time around, I plan on adding carbs to my post-workout meal no matter which approach I take. I am just looking for some insight and suggestions as the best way to go. I am leaning towards the low carb approach, but I am looking for any advice you care to give.

Thanks,

Kevin

Answer: My first comment is one you probably won't expect: give yourself more time to lose that weight. For a 50-pound weight loss, I'd suggest more along the lines of 6 months. This will help to ensure that most of the weight you lose will be fat rather than muscle.

As for the carb issue, my experience is that people vary widely with respect to their tolerance of no or low carb diets. Your question to me suggests that you don't function optimally on such diets. Therefore, let's eat those carbs during times when they help you the most and hurt you the least: early in the day, and immediately post-workout. I very much like Dr. Mauro DiPasquale's approach as outlined in his book The Metabolic Diet. The essential premise is that you eat the smallest amount of carbohydrate that allows for good health and functioning. As for the exact amount of carb that will work for you, that'll depend on many factors: I'd suggest monitoring your diet for total caloric intake as well as carb grams, and then also monitoring your workout quality and general mood. If all's OK, gradually continue to reduce your carb intake until you start to notice ill effects. Your ideal carb intake will be slightly higher than that amount.

Thanks for your questions everyone— if you've got one of your own with my name on it, just send me an e-mail to charles@integratedsportsolutions.com, and I'll do my level best to answer it in an upcoming newsletter.

- Charles

Get Creative With Your Training Splits!

Five Neat Ways To Jump-Start Your Workouts

by Coach Staley

Human nature is both amazing and perplexing. We have the capacity to achieve the most amazing accomplishments, yet, at the same time, so often we fail to see the obvious. And the solutions to most of our problems and challenges in life are, more often than not, within easy reach— if only we had eyes to see…

My friend John Berardi uses the term "proximity bias" to describe people's lack of appreciation for people, events, and things that are close at hand. I think this applies not only to familiar people & places, but also to familiar habits and thought patterns as well. Think about it: of the almost endless array of possibilities we can explore with respect to our training, virtually all of us are on an endless merry-go-round of 5-6 training splits that we've become accustomed to over the years. This is unfortunate because the manner in which you apportion work over the course of a week (which is what we mean when we refer to a "split") has a profound influence on our ability to recover (and hence, benefit from) that work.

So with that thought in mind, this month I'd like to share some neat ways to create weekly training cycles that have really paid off for my clients over the years. If your own training has been in the doldrums lately, please consider incorporating some of these ideas. What's fun about these "templates" is that you can apply them using your favorite exercises and/or training methods. In other words, you can use them to enhance what you're already doing. So read, learn, and apply!

The "A-B" Split

This is the simplest, yet one of the most effective ways to organize your training. Simply make two categories of exercises— for example, lower body and upper body. Or pushing and pulling. Call one category "A" and the other "B." Then schedule a workout every other day, like this:

Monday: A
Wednesday: B
Friday: A
Sunday: B
Tuesday: A
Etc., etc

Now, if you'd rather have your training correspond to the calendar (so that you always know you can take Sundays off for example), just tweak the A-B split like this:

Monday: A
Wednesday: B

Friday: A
Monday: A
Wednesday: B
Friday: A

Etc., etc

The Ian King 4-Day Split

This one is pretty slick: You categorize upper body workouts by movement pattern, and lower body workouts by joint/muscle group focus, like so:

Monday: Upper body vertical push/pull
Tuesday: Lower body, hip emphasis
Thursday: Upper body horizontal push/pull
Friday: Lower body, knee emphasis

On this split, vertical push/pull would include exercises such as military presses and pull-ups, whereas horizontal push/pull refers to exercises such as flat bench presses and seated rows. Hip emphasis refers to exercises that focus on the glute/hamstring region, such as back extensions, leg curls, stiff-leg deadlifts, and (depending on how you perform them) squats and/or deadlifts. Knee emphasis means exercises that target the quads (should be self explanatory). This concept can be expanded upon by performing trunk/hip flexion exercises on one leg day and oblique exercises on the other. Also: perform gastroc exercises on one leg day, soleus exercises on the other.

The "Staley-ized" Ian King 4-Day Split

Monday: Upper body lat/tricep
Tuesday: Lower body, hip emphasis
Thursday: Upper body pec/bicep
Friday: Lower body, knee emphasis

This is just one way to tweak the split that works well for a lot of trainees. Try it!

Motor Quality Split

Monday: Lower body maximal strength emphasis
Wednesday: Upper body speed strength emphasis
Friday: Lower body speed strength emphasis
Sunday: Upper body maximal strength emphasis

Here, you're apportioning by muscle group as well as motor quality. You have a few options here. For example, on upper body workouts, you can use the same exercises on both workouts (using different loading parameters for each motor quality obviously). This would

be more appropriate when performance is the goal, since you'll have more practice (essential for developing motor skills) on each exercise.

Or, you can use different exercise selections on both weekly sessions. This would be a better choice for hypertrophy development. In this scenario, you're separating workouts by muscle region as well as motor quality—this is the ideal strategy for recovery purposes.

Convergent Phase Training

Regular readers of my articles and this newsletter will already be familiar with convergent phase training, but this split is so effective that I feel it warrants mention here. Essentially, CPT involves the interaction of 3 core exercises and 2 circuits for auxillary exercises in such a way that you'll train 3 days a week, but never repeat a workout for a full 2 weeks. Choose the core exercises in such a way that you cover maximum muscular geography with minimum overlap. For example, bench press, squat, and pull-up. Then divide all major muscle groups into 2 circuits like this:

A Circuit

Pecs
Triceps
Quads
Gastrocs
Rectus Abdominus

B Circuit

Lats
Biceps
Hamstrings
Soleus
Obliques

Next, assign an exercise for each muscle group listed above, but don't use any exercises that you picked for the core movements. Finally, you put the schedule together like this:

Monday: Squat + A Circuit
Wednesday: Bench + B Circuit
Friday: Pull-Up + A Circuit
Monday: Squat + B Circuit
Wednesday: Bench + A Circuit
Etc., etc.

That's the CPT split— loading parameters are chosen based upon whatever motor qualities you're trying to develop.

Tweaking The Programs For Recovery

If you find that the training frequency of any particular split described above is either excessive or insufficient for your own unique recovery abilities, simply collapse (by deleting "off" days) or expand (by inserting extra "off" days) the split to your liking. Look for the overall patterns rather than getting too caught up in the particulars. Get creative— think outside the box. As Jonathan Edwards advised in last month's newsletter, don't keep doing the same things over and over expecting a different result.

Testing & Tracking: Business Insights For Athletic Success

By Jonathan Edwards

Let's learn something from the business world and apply it to our training shall we?

If you're training for your best body you're an athlete. Believe it or not you are. The same elements needed to be a great athlete are the same needed to be successful in business. So whenever you can draw a parallel from one field into another, unrelated field, great things can happen. So it is with that understanding that I want you to hear about a process in the business world that can greatly save you the time, money, and aggravation you so desperately do not have any to lose in this day and age.

There is a great war in the Advertising and Marketing business. The war is waged between those who come up with the cute, colorful, funny ads we see on television and those who create ads that elicit a trackable response whether that may be a coupon, or the need to make a phone call and tell the operator where you saw the ad that made you respond. The first put out there and there is no real way to track the results. The latter, however, is completely trackable. For every dollar spent on that ad we can find out how many people responded to that ad.

Let's Have A Test!

Every year we wait anxiously for the Super Bowl. No, not the football, the commercials! How many of you remember the ad last year with the sweet-talking, Barry White- listening gentleman sweet talking his beautiful girl into having "Some logs to put out that fire."? What happened next? After some dancing in the kitchen he proceeded to come out and unleash his beer like a firehose on his date? Now here's the test…what was the commercial an ad for? And who was the manufacturer? Most of you got the first one but only half of you got the second one. What a waste of advertising dollars. I can't remember how many dollars were spent on that thirty second ad but I know it was a ton. And only half of us remember who it was an ad for.

How bout that little pink bunny that keeps "Going and Going." Can you tell me what it's an ad for? Sure you can…it's for batteries. But who makes those batteries? Eveready? Duracell? Neither…it's the Energizer Bunny. If you're like most people you got it wrong too. Energizer has spent millions on that "feel good" ad only to have people mistake it for another brand. That's a lot of wasted money.

It's the same for your training program. If you are in the ninety-five percent of the people in the gym who are going aimlessly through the motions you don't keep a training log. If you do keep a training log…Congratulations! But if you don't, how on earth do you know if your program is working? Most likely you are going by "feel". Most people go to the gym and do the same routine day after day, or worse, they do what they "feel" like doing or not doing. It is with this following of emotions that we jump from one program to the next without any concrete evidence to see if we are heading towards, or away from, our goals.

Don't Follow Your Feelings— Follow A Plan

The reason businesses have accountants it to track your progress. (No Enron jokes please!) Businesses have a Business Plan that they follow to stay on track. The difference between those who are successful and those who are not is a very basic distinction. Those who are successful follow a plan and most importantly they track their progress to make sure they stay on track. Businesses don't succeed on a feeling they succeed by laying out a plan, tracking there results and then adjusting where necessary.

In order to make a long term change (Example: To go from 18% bodyfat to 8%) most of the time our efforts go unnoticed for a long time. If you read past issues of *Muscle Media* and read the success stories of physical transformations you will notice that some made drastic changes quickly but others didn't see changes until week six or week eight. If you aren't committed to your plan you aren't going to stick with it if you follow a feeling. It's easy to feel discourage if you've made a decision to change and you don't see any evidence of change for four weeks. It is at this point that how you feel is going to sway you to do something different. By making a plan, deciding to stick with that plan, and then following that plan you will ensure your success.

In my training programs I like to set goals every six to eight weeks. Whether your goal is a change in body fat or a personal best in your bench press you can do this too. Pick a training program, or a eating regimen that you are going to follow for the next six weeks, no matter what. Commit to it and then implement that plan. At the end of the six weeks measure your progress, or lack there of. If you have made progress you have been successful and you are most likely to either repeat that program or make a slight adjustment to it to see if you can make even more progress. Whether you change the program or not, by tracking your results you can see if it is working or not.

Plateaus: How do you know if you've hit a plateau? When people tell me they are stuck and they haven't made progress in years the first thing I ask them is to see their training log. After a few seconds of Deer-In-The-Headlights facial expressions I ask them how do they know their stuck? "Well I just haven't made any progress" In my mind if you don't keep a training log consistently you haven't been consistent in your training or your diet either. Listen your body is like your checkbook (Don't tell me you don't keep one of those either! Aaaaagh!) Your body is like a checkbook. You make deposits and you make withdrawls. More good deposits and your checkbook looks nice and pretty. Crazy withdrawals and your checkbook looks pretty crappy. Don't do that with your body.

I bet that if you start to keep track of your diet (or lack thereof) and your physical activities (or lack thereof) you will quickly see that it's not the fault of your diet OR your training program. It's your consistency. That's one of the easiest fixes of them all.

We are often pulled off track by the latest greatest training program of either a drug using bodybuilder or an elite athlete. They are constantly refining their training to get the best possible results for themselves. They know how much sleep they need exactly. They know

the physical imbalances they have. They know how many calories they need. Because they do it everyday and they track their results. Every week they have a competition. Every year they have a World Championships. Every Four years there is an Olympic Games. They track it all and they have coaches to help them adjust to make even more progress.

The lesson learned by these great athletes should not be how many leg curls they've done, or how many sets of squats they do. The lesson should be how they track and tweak their programs. Their Business Plan. How their Coach (Accountant) tracked the numbers and how the Competition (Tax Man, kidding!) marked their results.

Listen, there is a different program for every day of the week practically! So which one do you do?

A Program Is Successful When It Takes You Closer To YOUR Goal.

Notice how I said "YOUR" goal and not someone else's. That is why one person can say that this Low Carb, High Fat, Soy Protein Diet beats your High Diet Soda, Extra Cheese Pizza, With Fiber Diet. I'm being sarcastic but the point is: The only way you can truly tell if a plan will work for you is if you follow it for a predetermined set of time. You follow it to the letter. You track your results.

How Much Time Do I Give It To See If It Works?

I'm going to assume that you are a somewhat educated individual and that you are able to make a critical decision on which program to follow. There are a ton of different plans out there and most of them are made up without much thought. Others work for athletes who are chemically enhanced and would be too much volume for someone who was not on gear. You have to be careful going into any new program.

To answer the time question I would give something at least a month quite possibly six weeks at the minimum. That goes for diet and workout regimes. Anything less than that and you are kidding yourself. We all know the first week of a new program takes some adjusting. Maybe you get the Monday and Tuesday but Wednesday you head to McDonalds or maybe you have pizza for dinner. Either way you need to take the time and be consistent. You owe it to yourself to be consistent.

How Do I Track My Results?

If it's a new eating plan you are following a basic body fat test would be a great idea. Remember that they are only accurate to + or – 3%. Forget those Tanita scales – if you have an extra ounce of water in your belly it throws off the whole thing. The best of the best? Get weighed underwater, some may disagree but I think most would say it's the most accurate way to go. After six weeks, get weighed again. If you are on your program you should get an accurate indication of how your plan is working. If the numbers disappoint you make a change.

When you are making a change for better results in your lifts you need to schedule in some testing for your one or two rep max. I prefer a one rep max but others would say "Why risk injury." Only go for a one rep max if you are an experienced lifter and have had some guidance as to proper technique. If you haven't had that I wouldn't even go for a three rep max! Be smart and don't hurt yourself but find a way that is right for you.

Keep A Log!!

You have an odometer on your car for a reason. Every 3000 miles you get the oil changed. Every 30,000miles you get a tune up. But if you didn't know when 30,000 miles hit you wouldn't have a clue. Keep a log so you can tell what you are doing! The fun part is you can look back and see when you were struggling. I recently looked back into an old training log where my personal best in the squat was 225!! Now I hit that without even thinking. It's inspirational to know how far you've come, and where you're headed.

I always get a kick out of the stock channel. Especially when the Internet boom was happening and the Dow was up over 10,000 points. There would be a day when the market was down 100 points and it was the end of the world! The problem with saying it was down 100 was it was compared to the day before that went UP 250 points. Overall the market was the strongest it had been in history, but by looking at the little picture, one day in the grand scheme, everyone got in the dumps and was freaking out!

That can happen for you too. One day you look in the mirror and you're not as lean as you looked the day before. Overall, you've lost twenty pounds and you're the leanest you've been in years! If you have a log and can see the big picture you breeze right through that "off" day. But if you don't have a logbook and you can't see how this fits into the grand scheme of things you're going to fall off the wagon.

In The End

Just as a great business watches it's numbers so too should you. Your program is your business. By keeping a keen eye on all of the details of your program you're setting yourself up for success. Go out and get a nice notebook you'll be proud to lug around with you in the gym. Keep great notes, write down how you felt everyday your in there. Some days will be great others will be not so great. Don't worry because you my friend, will see the big picture and have your eyes firmly set on those goals of yours. Track everything and you can adjust, without tracking you will aimlessly flounder in the vast sea of gym goers who never make progress.

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BETTER TRAINING: Understanding Transfer

The purpose of supplementary training exercises is to develop motor qualities (such as strength, endurance, flexibility, and so on) which are expected to have positive transfer to the sport skill, and which cannot be effectively developed by practicing the sport itself.

As a practical example, experience has shown that initially, participation in a sport will, by itself, develop the pertinent motor qualities needed for success in that sport. 1500 meter runners develop endurance by running 1500 meters. Baseball players develop throwing strength by throwing. Tae Kwon Do players develop flexibility by kicking.

Inevitably however, the athlete will reach a point where sport participation on it's own will no longer be enough to improve the motor qualities needed. The 1500 meter runner finds that she can develop even better strength-endurance by running 400 meter intervals in addition to her normal regimen of 1500 meter runs. The baseball player finds that his throwing strength improves even further by specific strength exerciser for his shoulder girdle. The Tae Kwon Do player develops even better flexibility by supplementary flexibility exercises.

Note: In some instances, the sport itself may theoretically ALWAYS be the best method of developing a quality needed for that sport, but supplementary training may still be a better option. Example: In boxing, the most specific way to develop sport-specific endurance is boxing itself. however, this option is not always practical, since the amount of boxing necessary to develop the needed endurance will also result in injuries and psychological stress. In cases like this, supplemental activities such as cycling, rope-skipping, running, etc., are used to develop endurance. In the case of each activity, the more similar it is to actual sparring, the more transfer of endurance will occur, but at the same, time, you'll also have the same negative outcomes as well. For example, sparring drills (such as using focus mitts) are very sport-specific, but are also stressful and have a higher probability of causing injuries, compared to activities such as swimming or cycling.

A supplementary training exercise can have three possible effects on the target sport skill:

1) It can improve the target sport skill.

1) It can damage the target sport skill.

3) It can have little or no effect on the target sport skill.

Of course, in order for supplementary exercises to positively impact the target sport skill however, they must have what is called "positive transfer." Let's examine a practical example of how three different exercises can have three completely different effects on a particular sport skill, namely, the volleyball serve.

In this hypothetical example, the athlete has chosen three supplementary strength training exercises: the bench press, the barbell squat, and biceps curls.

Analysis:

Bench Press Exercise: As the volleyball itself is the primary object against which the upper body musculature must exert force, we can conclude that there is no compelling need to develop significant levels of strength in the pectoral, front deltoid, and triceps muscles. Also, significant efforts spent on the bench press exercise may have negative outcomes as well, including shortening of the pectoralis muscles, which may possible hinder certain skills where the arms are overhead, such as serving and blocking. Another possible negative outcome is the development of upper body muscle mass. This is problematic because upper body weight does not contribute to jumping or running ability. Bottom line: although the bench press may certainly be included in strength training programs for volleyball players, it by no means should be stressed as a key exercise, for the reasons stated above.

Barbell Squat: Many studies, as well as experience in the field, have demonstrated that improved strength in the squat leads to improved vertical jumping and running abilities—vital skills for volleyball players. In order for the squat to have positive transfer however, it must be performed with loading parameters that encourage the appropriate motor qualities (in this case, speed strength). Performing the squat for high repetitions for example, would actually de-train speed strength performance, and instead improve strength-endurance capacity. Bottom line: the barbell squat, if performed with loading parameters that encourage speed strength development, should be a key exercise for volleyball players.

Biceps Curl: Volleyball does not require the need for conspicuous levels of strength, hypertrophy, or endurance in the motion of elbow flexion. Therefore, other than diverting time and energy that could be used for better purposes, this exercise has neither positive or negative transfer to volleyball skills. Bottom Line: although the biceps curl may be included in strength training programs for volleyball players, it by no means should be stressed as a key exercise, as it has neither a positive or negative effect on the target skills needed.

Practical Recommendations For Maximum Strength Transfer

1) Whenever practical, use the sport skill itself to develop the desired motor qualities.

2) When not possible, the following apples:

• Some sport skills can be “overloaded” with a high degree of success. These include:

Skill	**Method of Overload**
Sprinting	Running up a slight grade
	Running into a slight head wind
	Running with a resistive parachute
	Running while towing a partner with a cord
Swimming	Swimming into a current
	Swimming with resistive clothing

Cycling	Cycling uphill
Cycling in a lower gear	
Cycling into a head wind	
Throwing	Throwing slightly overweight implements
Jumping	Jumping with weighted clothing
Jumping while tethered to the ground with elastic cord	
Combat Sports	Sparring with a larger/heavier opponent

If your sport skills do not easily lend themselves to overloading (soccer, basketball, skiing, etc), the best approach is to emphasize strength training exercises which represent fundamental movement patterns (e.g., squatting, lunging, pushing, pulling, etc) in order to improve inter-and intra-muscular coordination, recruitment of fast-twitch muscle fibers, and maximal strength. Later, during the performance of the sport skills, the body will learn how to apply it's new strength levels to the target skill.

3) Supplementary strength exercises will have the greatest positive transfer when they closely correspond to the velocity, contraction type (e.g., eccentric, concentric, static), participating muscle groups, joint angles, and duration of the event which you are training for.

BETTER NUTRITION: Getting the Best Results From Creatine

Creatine monohydrate is the most thoroughly studied and probably the most ergogenic of all legal performance-enhancement supplements available. Still, many people have lots of questions about the best way to use creatine.

We put the following questions to Thomas Incledon, MS, RD, Adjunct Professor of Kinesiology & Nutrition at Nova Southeastern University and research scientists at the Incledon Wellness Institute. Tom's credibility is enhanced by the fact that he is an elite athlete himself, with a background in Olympic weightlifting and (currently) Strongman competitions. Tom recently squatted 600 x 2, weighing less than 220 pounds. Obviously, Tom has spent as much time in the trenches as he has in academia. Now on to our questions:

Q: I've heard that creatine causes cramping. True?

A: From research on athletes, creatine users actually cramp less then non-users. The anecdotal reports of cramping, diarrhea, etc., that seem to prevail in practice among the lay population is most likely evidence that people are either taking too much creatine at one time, taking too many simple sugars at one time, or that there are contaminants in the creatine product being ingested. I have heard males claim that they needed 50 grams at one time, when a 5 gram dose is sufficient even for athletes who weigh in excess of 300 pounds. Bear in mind that excessive doses of creatine can cause osmotic diarrhea— this has nothing to do with the specific properties of the creatine itself, but rather the osmotic forces created by the concentration gradient (water is drawn into the lumen of the GI tract). If you experience these symptoms, back off on your creatine dosage and increase your hydration levels until they subside.

Q: What about using creatine while trying to lose excess body fat? I have heard that creatine can cause fluid retention and it isn't the best supplement to take while trying to lose body fat.

A: Creatine can allow you to train harder. It will make you gain weight but it is muscle-related and not fat-related weight, so this is a good thing.

Increasing your lean body mass will enable you to burn more calories 24 hours a day— in other words, even when you aren't training. Additionally, the initial water weight that is gained from ingesting creatine is predominantly retained in the muscle, which is why it doesn't affect blood pressure, heart rate or other cardiovascular parameters. So don't worry about the water gain. In my professional experience with women taking creatine, they like the strength gains, but immediately associate the increases in their muscle size with being "bloated." If you can ride out the initial experience (and assuming the rest of your diet and training are appropriate) you should make noticeable improvements in your strength and body composition.

Q: What's the best time to take creatine— before or after training?

A: The prevailing data indicates that creatine before training has no effect on performance. A review of the research leads me to conclude that taking creatine after exercise is the best time. Carbohydrate/protein drinks, pinnitol, sodium, and alpha lipoic acid seem to stimulate creatine uptake either directly or indirectly.

Q: I'm hearing a lot about "creatine serum." Is this a batter way to take creatine than the usual powdered variety?

A: Creatine serum is worthless. Several abstracts and lab reports have indicated there is no creatine in creatine serum!

In my conversations with people that swear it works, they claim to feel something almost immediately. This is not consistent with what we know about creatine— it must build up within the muscle cells before you can perceive an effect. In the past, supplement companies have added niacin and/or caffeine to products to create the perception that the product is working. I don't recall seeing anything that says caffeine or niacin were found in creatine serum, but then the labs may not have looked for these agents.

Q: Any thoughts on altering creatine dose for vegetarians?

A: No, they would take the same doses as omnivores.

Q: What is the best way to use creatine on a regular basis for the weight trainer trying to gain muscle?

A: My recommendation for loading is as follows: Take .3 grams per kilogram of body weight per day. Take this amount in 4-5 divided doses, ideally with a high glycemic meal, as insulin maximizes the uptake of creatine. After the loading phase (4-5 days) you would take .03 grams per kilogram of body weight per day.

In my professional practice, I have found that as little as 5 grams of creatine on workout days (3-4 times per week) is all people need to maximize performance. These subjects ingested the creatine with a carb:protein (3:1 ratio) drink after working out.

Q: Recently, one study suggested that creatine with dextrose is better than creatine plus grape juice. What's your opinion?

The key is maximizing insulin levels to facilitate creatine transport into the muscle. If you only have grape juice as a carbohydrate source, it will work. If you have access to a mixture of simple carbohydrates, like dextrose, fructose, and/or sucrose and whey protein, you will stimulate insulin release even more. Creatine mixed in with carbs and protein in a 3:1 ratio is about as cutting edge as you can get with the limited data that exists. So, if you take in 40 grams of protein with 120 grams of carbs and 3-5 grams of creatine, you are maximizing the potential of insulin.

Various companies have claimed that alpha lipoic acid, vanadyl sulfate, and/or chromium enhance creatine uptake. Recent data does indicate that there is greater creatine retention with alpha lipoic acid and pinnitol, but I am not convinced yet that is a direct effect. I suspect it has more to do with the extra glycogen being stored in the muscle. So users experience an acute increase in muscle size and assume it is due to the creatine. I say it is acute because the size will disappear as soon as glycogen levels return to normal.

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STAYING HEALTHY: Neutral Spine Theory

Given the fact that every nerve in your body exits some level of the spine, it naturally follows that this intricate miracle of engineering deserves your attention as a fitness professional, coach, or athlete. In my travels to numerous gyms in North America, I commonly see exercises performed in a manner that are potentially hazardous to the spine, so let's make sure that it's NOT you, OK? OK.

One of the prevailing paradigms about the spine is that it is best able to safely attenuate forces and support loads when it is in a "neutral" position. If you observe the spine of a healthy person with good posture, you'll notice that there are several distinctive curvatures—the cervical and lumbar curves are the ones we'll be most concerned with here. Now of course, some people have a lot of curvature in their spines, and others have less. The exact amount of curvature which is optimum is a subject of heated debate, however, everyone has their own unique neutral curvature.

"Neutral" is the position where the spine can most efficiently and safely support load (such as when you have a bar on your back when squatting) and absorb forces (such as the impact that occurs during running). Even though everyone's "neutral" is slightly different, we can say that neutral never involves any rotation or side bending.

Very often I see people looking over their shoulder in the mirror as they perform curls or triceps pushdowns. WRONG. Always, always look straight ahead not matter what.

Another common practice is to flex-rotate while stopping over to grab a plate from a low rack. WRONG. Flexion-rotation is one of the most hazardous positions for the spine. Instead, approach the rack, face it squarely, and bend the hips and knees to lower yourself.

Also avoid stopping over from a seated position to pick up your dumbbells for the next set of presses. Every chiropractor and physical therapist is familiar with compressive load comparison charts that show this very position to be the most precarious possible position to put your lumbar spine into. So instead, stand up, bend your knees, deadlift the dumbbells, sit back down, and resume your workout.

Yet another error is the practice of looking upward during stiff-leg deadlifts. WRONG. During any form of squat or deadlift, imagine that you're wearing a cervical collar (which, in fact, you might be wearing for REAL if you don't follow my advice here!) during the movement. The head follows the body. On these exercises, looking downward (relative to the trunk) can cause a reflexive shut-down of the lumbar muscles, and looking upward can strain the cervical vertebrae.

Suggestions For Keeping Your Back Healthy

First, if you have back pain, always start with an accurate diagnosis from your chiropractor or physician. Make sure you ask him/her to explain what's wrong, and then listen carefully to his/her recommendations. Learn as much as you can about your condition.

Low back pain is the most frequent cause of missed work after the common cold— it's been estimated that over 90 million people suffer with this debilitating condition. However, with all the knowledge and diagnostic tools that we have available to us today, there is no reason that back pain should continue to plague so many people.

The key to managing low back pain starts with the decision to take an informed, active role in maintaining your health. Your back needs a little maintenance every day— even when you don't have pain. When you visit with your doctor, you might spend 15 minutes in an office visit. However, you spend 24 hours a day, 7 days a week living with your back. Treatment and therapy are important, but it's what you do for yourself when you're not having treatment that is most important to help you live free from reoccurring back pain.

Nerve Impingement

Nerves can become impinged or pinched by the disks, vertebrae, or swelling of the surrounding soft tissues. When a nerve is pinched, the muscles of the back can go into spasm, and the pain can radiate away from the spine. There are three degrees of radiation: First degree, which is when pain and/or "pins and needles" radiates to the butt; second degree, which involves these symptoms radiating to the knee; and third degree, which is when the symptoms radiate to the foot.

When a nerve becomes damaged, the muscle that it supplies (or innervates) withers or atrophies because of the lack of nerve supply. If pain radiates down the leg, or if you have numbness, tingling, or loss of muscle function, seek medical intervention immediately— the longer you wait, the greater the chance that you'll have a permanent injury.

Reducing The Inflammation

The first step in addressing back pain is to "put out the fire." Inflammation is often the result of the joints, nerves, or soft tissues of your back becoming irritated, raw, and swollen. According to a recent government study (AHCPR), the recommended initial medical treatment of choice is usually an oral anti-inflammatory and ice. Exercise caution however, because some people can't tolerate any type of anti-inflammatory medication. Check with your physician before you use any drug.

While using an internal anti-inflammatory, you should also use an external anti-inflammatory, namely ice. Flexible gel packs are best, but crushed ice in a "zip-lock" bag works well also. Crushed ice works particularly well for people who weigh over 200 pounds. Make sure that if you use crushed ice, that it's really smashed up into a fine pieces— otherwise it's like lying on rocks. Don't cover it with a towel because it just won't penetrate deep enough to work. Instead, use a zip-lock bag.

Ice is cold and after a minute or people usually want off! However, the immediate pain of the ice is worth the long term relief you'll get from the reduction of inflammation and swelling. Ice has to be cold— *really* cold to be effective. Imagine the thickness of a t-bone steak and

how cold you would need to get one side to feel the effect through the other side. That's about the thickness of the your back muscles.

The key to using ice is staying mobile and flexible. One side effect of cold is that it tends to make you a little stiff, so...stretch! Do knee to chest and pelvic rock stretches while lying on the ice. This is called cryokinetics, or "movement on ice." Not only does it keep you from stiffening up but it literally pumps swelling or inflammatory edema out of the low back as you stretch.

Resources:

Want to learn more about neutral spine theory? Check out Dean Farwood's excellent website at: http://home.earthlink.net/~farwoods/index.html. Dean has lots of free articles explaining the neutral spine concept, and I highly recommend his Neutral Spine video as well.

Check out *The 5 Step Back Solution*, a self-help videotape produced by the American Institute of Health Education (for more information, please call 800-892-4772)

CREATING A LIFESTYLE THAT SUPPORTS YOUR FITNESS & TRAINING GOALS:

The Power of Scheduling

In order to have adequate (hey, why not go for optimal?!) time and energy for training, the rest of your life needs to be highly organized and efficient. One powerful strategy to accomplish this is scheduling.

While most people only schedule events that are imposed on them from the outside (meetings, travel plans, work, etc.), efficient people schedule almost everything in life. In this edition of The Unnatural Athlete, I'd like to specifically focus on scheduling meals and workouts.

There is a VAST difference between thinking "Tomorrow I'm going to work out." and "My workout is between 7-8am tomorrow morning." In the first case, you might have a vague time-frame in mind, say 8:00am. However, by 7:30, you're behind schedule, so you reason to yourself that you'll train after work. Then, by the time you leave work, you realize that you didn't bring your gym clothes with you, so you think "I'll just train after dinner." And of course, after dinner, you're tired and distracted by the television, and guess what? You missed your workout! Now, you might rationalize that you'll just do the workout tomorrow instead. This leads you to the incorrect assumption that you simply rescheduled your workout rather than skipping it, which is exactly what you did.

On the other hand, knowing that you have a workout (or a meal) scheduled at an exact time, you'll be much more likely to prepare for and keep your appointment. If you DO fail to keep to the schedule, you'll be much more likely to feel a sense of consequence for your decision.

Some readers might find themselves "turned off" by what they perceive to be rigid constraints on their time. However, remember that you must be master of the schedule, not it's slave! The schedule can be broken! The point is, at least have a schedule to break. Ultimately, the point of scheduling is to reduce stress, not cause it.

Even the most motivated among us experience days where stress and/or fatigue put a damper on our desire to train and eat right. However, people who schedule their training & meals almost always end up with a better outcome during these times than people who do not use scheduling techniques.

Benefits

• Scheduling focuses your efforts. As the appointed time to train looms near, you'll automatically find yourself mentally gearing up for your workout. If a meal is coming up, you'll begin thinking about what you'll eat in order to stay on track.

• Scheduling gets you used to performing a specific type of task at a specific time of the day. In sports where competitions are almost always held at the same time (say, Saturday

mornings), smart coaches schedule the most important workouts at that specific time, in order to "teach" the body to function optimally at that exact time. You can apply this same principle to every important function in your life through the intelligent use of scheduling.

• Scheduling lessons self-defeating decision-making in times of stress or fatigue. I know a lot of athletes who anxiously ponder their upcoming workout for days, only to "peter out" when it's time to train. Live by your schedule and your stress levels will decrease substantially.

Tips & Tricks

• The first thing to schedule is an hour, once a week, where you'll plan the upcoming week's schedule. Find a time when your energy is high, and where it's likely to be quiet and free from interruptions. For me, it's Sunday morning. For you, it might be some other time.

• The more important it is, the more important it is to schedule it. Put the important stuff in first, before you run out of room (i.e., time and energy). This is the "Big Rocks" concept so often discussed by Jeff Smith in his excellent coaching courses.

• Find a someone who can help to keep you on track: This could mean a training partner, or (more creatively) instruct the desk help at your gym to berate you if you fail to show up at your scheduled time!

• Proactively limit interruptions: The phone rings a half-hour before your scheduled meal or workout. Answer by saying "Hi, I only have a minute, what's up?" This way, the caller expects a short call right from the start.

• When your motivation is just not there, "act as if:" In other words, if you're scheduled to go to the gym at 5:00, and by 4:00 you're absolutely wasted from fighting with your boss, start by going through the motions. Just get your training clothes on. Get in the car. Drive to the gym. Do the best you can. Don't put pressure on yourself. Allow the warm-up to do what it's supposed to do— don't worry about how you feel now— remember that you'll feel much more engaged after you've warmed-up. If you end up having a "half-ass" workout, that's still a LOT better than skipping it altogether.

• Schedule regular meal times by setting the countdown function of your wristwatch to beep every three hours. Make a rule that as soon as the alarm goes off, you'll eat within 30 minutes.

• Need to stretch, but hate it? For a lot of people, athletes included, stretching is about as exciting as doing your taxes. Since stretching generally doesn't require a lot of intense concentration, try scheduling it during your favorite half-hour television or radio show the same time each day. This way, you'll stay on schedule, and have some entertainment to keep you occupied as you stretch.

• Schedule your finish time as well as your start time: During workouts, put a timer on yourself. Your workout always ends at the scheduled time, no matter what. This will keep a fire under you and help you to emphasize quality over quantity.

• Scheduling can help you minimize unexpected problems. For example, twice a week I run sprints and do medicine ball drills at a park near my house. Over a period of a few weeks, I found that the park is least likely to be busy at around noontime, so that's when I always go.

• There are great scheduling software applications available at low cost. I use Personal Organizer by Chronos.

Q&A With Coach Staley

Question: A trend seems to be developing using weights in a swinging motion: kettle bells, Indian clubs, Thor hammers, etc. Would you comment, with suggestions for best results in martial arts and other sports?

Thank you.

Steve Condry
Knoxville, TN

Answer: Whenever you need to evaluate the effectiveness of a particular training method, there are a few different questions you need to consider:

1) Will the method in question develop a quality, skill, trait, or ability that will enhance your sport performance?
2) If the answer to the above question is yes, the next question that must be considered is "is there a better (meaning faster, cheaper, more time-efficient, safer, etc.) way to develop the desired quality, skill, trait, or ability?

In the case of kettlebells, Indian clubs, etc., the answer to the above questions will vary from case to case. You'll need to evaluate your strengths and weaknesses as an athlete: if, for example, you conclude that flexibility is your weakest trait, and you're considering the use of a particular method such as kettlebells, you need to determine to what degree kettlebell training will enhance your flexibility as compared to other methods. In other words, find your weaknesses as an athlete, and then find the best way to develop that weakness.

I'm not saying that kettlebells and other devices/methods don't have merit, but rather, the effectiveness of any device, paradigm, or method is directly correlated to the degree to which it improves your weakest link as an athlete.

This may or may not be what you want to hear, but in the overwhelming majority of cases, improving maximal strength will give the most "bang for your buck" for the time and energy expended. This is because maximal strength is easy to develop and is foundational to almost every other motor quality. Also, for most athletes (powerlifters excepted) practicing your sport does not provide an opportunity to develop maximal strength.

With the above established, it's hard to escape the fact that plain 'ol boring barbells and dumbbells are almost the best way to develop maximal strength.

Often, people confuse novelty with effectiveness…people don't get results with what they're doing, and then begin to assume that maybe there's a better program (or method, or device, etc) out there that they've overlooked. In most cases however, it probably isn't the method that's at fault, but the implementation of the method. In other words, lots of people get great results from piss-poor methods because they're dedicated, consistent, and make smart

decisions when unexpected setbacks occur. Thanks for your question and I hope this gets you started in the right direction…

Question: Greetings Charles:

My question relates to rotator cuff exercises. Currently in my forties, I sustained a significant rotator cuff injury many years ago (never required surgery). I have no problem with pain while doing any upper body movements including overhead dumbbell presses, benching, etc. However, there is a definite lack of strength and stability with my (dominant) right arm and shoulder and progress is very slow on that side. As I plan to once again compete in the sport which I have long been involved in, and thus would greatly benefit by correcting this imbalance as much as possible, what do you recommend as the most effective way to strengthen and stabilize the rotator cuff and/or adjacent muscle groups? Your help will be greatly appreciated. Thanks.

Regards,

Mark A. Turner, Stonington, CT

Answer: Hi Mark, I can empathize with your situation— often it's these nagging, non-descript joint symptoms that really throw a wrench into your training progress. I'm going to STRONGLY recommend that you get a qualified diagnosis for your shoulder symptoms by a skilled orthopedist, chiropractor, or other related professional. You may need to go to several specialists in order to get an accurate picture of what's going on. The first step is to determine if you have normal pain-free range of motion in your shoulder. If not, you have to determine what's preventing normal ROM. If you do have normal pain-free ROM, then it's a strength and/or coordination issue. In your training diary, keep notes regarding the types of movements and/or situations that cause the symptoms— this will be very handy information for whoever you end up seeing on a professional basis. There really are no absolutely ideal ratios between various muscles— it's highly individual and situation-dependant. Point your browser to the S.W.I S (Society of Weight Training Injury Specialists) website at: http://www.swis.ca. Next click the "directory" link to find a qualified specialist in your area. Best of luck and please keep me apprised of your progress.

Question: Hello Charles:

I'm a Paramedic/Firefighter by profession, and I practice martial arts & regular fitness and weight training. I'm 39.

I'm very interested in your opinion re. Training to develop "coordination" in the torsal area. I know many who've injured their backs through crummy lifting techniques. I also know those who've injured themselves in circumstances beyond their reasonable control, e.g. when a gurney tips or a patient lurches while being carried. In an attempt to try and minimize my chances for injury, I've begun a program along these lines:

1) Bent over rows using dumbbells, one arm at a time, but with no support of my opposite knee or hand. I use tensioning of my torso, carefully incremented weight increases (from light weights), and I don't allow my back/abs to get tired to where my form would begin to risk failing.

2) Single-arm deadlift & press (using a Cuban-press style of lift to work the external rotators as well). I use the same format as #1.

3) Single-arm pull downs & bench pressing.

I reasoning is that if you're always training the body to use balanced weights, the torsal muscles' ability to react to imbalances will be dampened or inadequate. If you carefully train your body to lift weights using both bilateral and unilateral lifts, then you would develop the intramuscular coordination for both isometric (torsal tightening) and isokinetic (the other "lifting" muscles) purposes.

To date I've never hurt myself, and I use these types of lifting 3 out of 4 sessions. I'm intent on pursuing a more organized training system as per your books, and I've really enjoyed learning from your publications and online sources relating your knowledge, ideas, and experience.

Tony Ricci
Menifee, CA

Answer: I like the split you've put together, and in fact, I often use similar programs with unilateral emphasis with my own clients and coaching group members as a way of identifying bilateral asymmetries before moving on to more aggressive bilateral work. My only suggestion is that I would not use a microcycle that employed unilateral drills exclusively— in the same cycle, also include the more traditional bilateral multi-joint exercises (chins, bench presses, squats, etc). Athletes should generally use both forms of training year-round, albeit in different proportions.

Thanks for your question— it's always fun and interesting to see creative approaches like this.

Thanks for your questions everyone— if you've got one of your own with my name on it, just send me an e-mail to charles@integratedsportsolutions.com, and I'll do my level best to answer it in an upcoming newsletter.

- Charles

The EDT Fat Loss Solution: Lose 1/2% Fat Per Week With NO Dietary Changes!

By Alwyn Cosgrove, CSCS and Charles Staley, MSS

Since the inception of the Escalating Density Training system (see www.EDTSecrets.com), one of the most common inquiries we receive at the office is "When are you going to write about EDT for fat loss?"

How about right now?

As it turns out, EDT is perhaps the simplest and most effective training technique available for body composition training. I was recently talking to my colleague Alwyn Cosgrove, owner of Results Fitness Training in Newhall, California has been using EDT-inspired training programs to facilitate rapid losses in bodyfat with his clients for several months now. In fact, Alwyn claims an average loss of 2% bodyfat per month with no dietary changes at all. However, there is a price to be paid for quick results, and this program does exact a heavy toll— Cosgrove joking refers to it as "Rambo training— it's not for wussies." I agree, but at the same time, this is about as fun as hard work can be. Have a look…

The Program

This EDT cycle is simple, brief and yet quite brutal. You'll perform (3) 15-Minute "PR Zones" where you'll attempt to accumulate as many total reps as possible and then improve upon that number every workout (see "EDT Loading Parameters" for more details). Each and every workout you know how long it'll last and you also know exactly what you need to accomplish. It's that simple. Here's your program, make exercise substitutions if equipment or injury restrictions warrant.

Monday

First PR Zone (15 Minutes)
A-1: Chins
A-2: Hack Squat

Rest: 5 Minutes

Second PR Zone (15 Minutes)
A-1: Rows
A-2: Seated Leg Curl

Rest: 5 Minutes

Third PR Zone (15 Minutes)
A-1: Overhead Press Machine
A-2: Incline Board Sit-Ups

Wednesday

First PR Zone (15 Minutes)
A-1: Dips
A-2: Back Extension

Rest: 5 Minutes

Second PR Zone (15 Minutes)
A-1: Incline Press Machine
A-2: Leg Extension

Rest: 5 Minutes

Third PR Zone (15 Minutes)
A-1: Flat Dumbbell Bench Press
A-2: Reverse Trunk Twist on Ball

Friday

First PR Zone (15 Minutes)
A-1: Dumbbell Deadlift
A-2: Push Press

Rest: 5 Minutes

Second PR Zone (15 Minutes)
A-1: Preacher Curl
A-2: Lying Dumbbell Triceps Extension

Rest: 5 Minutes

Third PR Zone (15 Minutes)
A-1: Standing Lateral Raise
A-2: Prone Ball Roll

COSGROVE: Note that you can also reduce the rest periods between PR zones thereby further increasing the density. I also prefer to have a bigger rep "buffer." In regular EDT I allow 20% more reps before I increase the loads. In Fat loss EDT I don't increase the loads until you perform 30% more reps. I think the higher volume helps with fat loss (this assumes a good load selection initially). Another rule I use is that the eccentric phase should be controlled, the concentric should be accelerative.

EDT Loading Parameters

For those not yet familiar with EDT's unique loading parameters, here's the nuts and bolts:

• Escalating Density Training is based on the concept of doing more and more work from workout to workout. Therefore, it's critical that your exercise biomechanics (i.e., technique) is consistent on every workout. If you perform strict curls on one workout and loose form the next, you aren't really doing more work (for the arms at least!)

• I recommend 10-15 minutes of light to moderate cardio, followed by 10-15 minutes of light stretching on "off" days for the purpose of promoting active recovery and reducing soreness.

• Each workout in this cycle consists of (3) PR Zones of 15-minutes duration separated by a short (5-minute) rest periods. In each PR Zone, you'll generally perform two exercises, for a total of 3-4 exercises per workout.

• In each PR Zone, you'll typically perform two antagonistic exercises in alternating fashion, back and forth, using the same weight for all sets, until the PR Zone has elapsed.

• After warming up the first exercise(s), select a load that approximates a 10RM for each exercise. Ideally, the weight used for each exercise should be equally difficult.

• Sets/Reps/Rest Intervals: This is where EDT is truly unique. Most people will find it most productive to do higher repetition (but not maximal effort) sets and shorter rests at the beginning, and then gradually progress to fewer reps per set and longer rest intervals as fatigue accumulates. As an example, you might begin by performing sets of 5 with very short (10-15 second) rests. As you begin to fatigue, you'll increase your rest intervals as you drop down to sets of 4, then 2, and as the time limit approaches, you might crank out a few singles in an effort of accomplish as many repetitions as possible in the time allotted.

• NOTE: Do not perform early sets to failure, or even near failure. My recommended starting point is to do 1/2 of what is possible (e.g., 5 reps with a 10RM weight) at the beginning of the time frame. As the time limit approaches however, you'll find yourself working at or near failure as you attempt to break your rep record.

• Progression: Each time you repeat the workout; your objective is to simply perform more total repetitions in the same time frame. As soon as you can increase the total number of reps by 20 percent or more, start the next workout with 5 percent more weight and start over. Similarly, if you manage to improve upon your last performance (for the same workout) by 40 percent, then you'll increase your weights by 10 percent on the next workout.

PROGRESS ACCELERATION TIPS:

I like amino acids as the post workout meal - an hour later I have a shake with fiber when training for fat loss.

Aerobics: avoid like the plague - they cause you to lose muscle, and they help you to become more efficient at burning fat. So how would you like your fat burning machinery to get smaller and more efficient when you are trying to lose fat ? Thought so.

For the EXTREME RAMBO HARDCORE ADDICT: Do EDT using hybrid lifts - see below. Another very cool yet brutal tip is to do TWO 15 min periods in the workout but perform TWO EDT workouts per day. Brutal but it'll carve you up.

First PR Zone (15 Minutes)
A1 Alternating max lunge
A2 Seated Cable Rows

Second PR Zone (15 Minutes)
B1 Step Up
B2 Push up-prone tuck combo

Third PR Zone (15 Minutes)
C1 DB Squat and Press
C2 Close Grip Pulldown

Day Two :

First PR Zone (15 Minutes)
A1 Bulgarian Split Squat
A2 Push Press

Second PR Zone (15 Minutes)
B1 SHELC
B2 Seated Row to neck

Second PR Zone (15 Minutes)
C1 Good morning squat hybrid
C2 Incline Db Press

Day Three :

First PR Zone (15 Minutes)
A1 Deadlift
A2 Pullover

Second PR Zone (15 Minutes)
B1 Lateral Lunge and touch
B2 Arnold Press

Third PR Zone (15 Minutes)
C1 DB Swiss Ball Crunch
C2 Bent Over DB Row

Fuel For EDT

To maximize the effectiveness of this EDT fat-loss program, employ the following nutritional strategies:

1) Reduce consumption of refined carbohydrate (breads, pastas, white rice, potatoes, grains, cakes, cookies, etc.) to a bare minimum, especially later in the day.

2) Virtually all meals should contain a fiber source, expect for post-workout meals, which should ideally be a fast-absorbing protein/carb shake. Check out a cool product called Fiber Smart at www.infinityfitness.com. This is a unique, dietary fiber made from flax seeds and other top quality ingredients to support proper function and health. It also contains Acidophilus and Bifidus to promote a health bacterial balance and amino acids to support a healthy digestive lining.

2) Eat every 3 hours for a total of 5 to 6 meals per day. No exceptions. Schedule meals as if they were appointments with yourself— because that's what they really are when you think about it.

3) Calculate or estimate your lean body mass (total weight – fat weight) and eat one gram of animal-source protein per pound of lean bodyweight per day, divided into 5 or 6 meals. For an individual who weighs 200 pounds and is 15% body fat, this would mean 170 grams per day, which would equate to 5 meals containing 34 grams of protein per meal.

4) Hydrate! My recommended water intake is 60 percent of your bodyweight in pounds, converted to ounces, per day. For example, if you weigh 150 pounds, drink 90 ounces of water per day.

5) Watch out for "hidden" sources of fat and sodium such as various salad dressings and condiments.

6) Educate yourself on the caloric value of what you eat. If you're not losing weight (fat) you'll need to eat slightly less calories, and/or increase caloric expenditure (via exercise). There may be some trial and error at first as you learn more about how many calories you'll need to create an energy deficit. COSGROVE: this is key. Violate this rule and you are toast.

7) Develop strategies to cope with difficult situations, such as family get-togethers and going out to eat. COSGROVE: Fast food? Yes— it's called grilled chicken sandwich. Fries, no.

8) Virtually all breakfast cereals are to be avoided— they almost always contain high levels of calories, sugar and non-existent protein and fiber content— the worst possible type of food. COSGROVE: the only cereal you can have is oatmeal. Nothing else.

9) Some saturated fat is OK, but it's easy to take in more than you realize…be careful with salad dressings, condiments, grilled meats, fried foods, Chinese food, gravies, etc.

10) Stop analyzing everything to death and get down to basics— it's not that difficult to figure out how to eat right. Which brings us to…

11) Staley on "simplexity:" OK, let's get down to brass tacks here— EAT LESS! I'm often asked about the fat loss value of various foods like grapefruit, cider vinegar, etc. My patented response is "Any food will make you lose weight— if you eat too little of it." A little trick is in order here— the next time you feel hungry, instead of giving in to it and feeling deprived, tell yourself "OK— this is good— it's a sign that I'm doing the right thing." Trick yourself into believing that being hungry is desirable.

12) Here's what Cosgrove has to say about cheating:

• If you cheat: DO NOT, I repeat DO NOT change your next meal. I see many clients who overeat at one meal and then under eat at the next meal as a kind of "payback." All you did now was screw up TWO meals.

• If you cheat: get right back on track. A lot of people think after cheating— I've blown it— so I might as well REALLY blow it! Let me ask you— if you get a flat tire do you get out of your car and slash the other three? Hey, you have a flat tire— might as well have four, right?

13) Cosgrove on hunger: Hunger is a sign that your body is lacking in energy. At this point your body will use stored fat as a fuel source. It's a good thing. While I agree with Dr. Eric Serrano that calories are not created equal— it's tough to argue that eating less calories will cause anything other than weight loss. It's the law of thermodynamics.

Learn more about EDT training at www.EDTSecrets.com

Busier Than A One-Armed Taxi Driver With A Stick Shift: Too Much To Accomplish And Not Enough Time

By Jonathan Edwards

Have you ever felt this way? You have a goal in your head that you need to achieve and there just doesn't seem to be enough time to get it done. This is especially true if you are an aging athlete. Or should I say "aging" by the standards of those that have gone before you!

I am a huge believer that you have all the potential to re-write the proverbial "book" of your sport. There are always exceptions to the rules and if there is going to be an exception it may as well be you. But what gets in the way of re-writing the rules are things that take our eyes off the prize and lead us down the path called "frustration".

Stephen Covey in his book "The Seven Habits of Highly Effective People" eloquently defines the difference between Urgent issues versus Important Issues. Urgent issues are things that require our immediate attention (or at least someone thinks you need to attend to it right now and sometimes that person might be you!). Urgent issues encroach on our lives and force us away from those things that are important.

Important issues are stepping-stones to results. The things that are important in your life are things that contribute to the end result or goal in your life. Important issues are always there, waiting to be dealt with so that you can move forward. If you leave them too long, important issues can even become urgent ones.

If you take a look back at your planner from last week (you do have a planner don't you? Oh boy…does this mean I have to write another article?) Anyway…back to your planner. Take a look and see how much time you actually spent training and recovering from that training. How was your diet? Did you miss a meal because you had to do something that you perceived as urgent and didn't plan to have a meal handy for that type of situation? Did you stay up way to late and get caught up watching the 2AM Sportscenter only to have to get up at 6AM to train? Take a look at how many things you did that, at the time, felt urgent. Obviously Sportscenter was more urgent than sleep or you would have hit the sack a lot earlier.

Stephen Covey gives us a great formula for figuring out the priority of things you need to accomplish. Looking back on your week make a list of all things you did and evaluate each task by considering 1) Was it of high or low urgency? And 2) Was it of high or low importance? If it was it was of high importance and high urgency give the task a 1. If it was of high importance and low urgency give it a 2. If it was highly urgent and of low importance give it a 3. And finally, if it was of low importance and low urgency, give it a 4.

Now I bet your list is mostly 1's and 3'. There are a couple of 2's, which is a shame because these are the sleepers of that list. And a handful of 4's finish it off. Now take a look at the 1's, were they really important to you or to someone else? Was the reason you did them was because of someone else's lack of planning? If they aren't really that important to you and

the reason you did them was for someone else you need to talk to that person. For the most part we live our lives amongst the 1's

The 3's are urgent and urgency grabs our attention. The bad things about the 3's however, is that they aren't really important and are huge time-suckers out of our day. And finally we tend to wallow in a sea of 4's when we just aren't motivated to do anything else!

The real valuable number here are the 2's (High Importance/Low Urgency) The 2's tend to get overlooked and it is this area of our life where we address the important issues of planning our training, preventative exercises to avoid injuries, relationship building, recognizing and developing new opportunities, etc.

The most valuable asset you have is your time. It's not your body as most coaches would like to think. The most valuable asset is the time in your day and what you do in that time is going to give you the best chance of becoming the athlete you can become. If you squander your time doing activities that are not important you will look back on your career with eyes filled with regret. If you utilize the Importance / Urgency distinction on all of your daily activities it will help you stay focused on what you need to do right now and in the future.

Jonathan Edwards is an Olympian, an All-American, a Performance Enhancement Specialist, and budding copywriter and marketing expert. Jonathan would like to thank all of you who wrote such great remarks to his last article. He would love to hear from you and get your thoughts on this article as well as suggestions for future writing assignments. Please write to jone@bodyvelocity.com

BETTER TRAINING: The "A-B" Split

Perhaps the most insidious mistake that people make when it comes to discerning the value of information is the deeply-held, often subconscious notion that a concept or idea must be unique, novel, unusual, contrarion, or simply "new" in order for it to have real value. Nothing could be further from the truth.

For example, every time you crack a muscle magazine, you'll find an article about some knuckle-dragger's favorite biceps routine, or a overly-technical thesis by some Academian about why you'll never have Arnold-sized guns unless you first develop the eccentric-strength deficit of the anterior scalene muscles. Well-intended advice aside, one irrefutable fact remains: if you want big biceps, plain-ol barbell curls are hard to beat. It's hard to sell magazines stressing the basics of course, so authors are always on the hunt for unique ways to train. The problem is, YOU end up getting sucked into the paradigm!

Now I too have a fondness for all things novel, however, in the interests of intellectual discipline, this month I thought I'd share a very useful training split that, although very simple, is quite effective. Especially for athletes who have other responsibilities in life aside from strength training, and also for novice trainees who do not yet possess the recuperative abilities necessary for more demanding training splits.

What's really nice about this split is that each muscle group or body region is trained 3 times in every 2 week period. I have found this frequency to be ideal for a variety of clients, especially athletes who have demanding sport-specific training schedules. The A-B split is quite flexible and can accommodate a wide variety of methods and techniques, such as drop sets, pyramids, eccentric training, whatever you feel is appropriate on a case by case basis. If for any reason the training frequency presented here is either insufficient or excessive, simply compress or expand the schedule accordingly.

Here is one month's worth of the A-B Split Program:

Monday: "A" Workout (Lower Body & Abdominals)

Wednesday: "B" Workout (Upper Body)

Friday: "A" Workout (Lower Body & Abdominals)

Monday "B" Workout (Upper Body)

Wednesday: "A" Workout (Lower Body & Abdominals)

Friday: "B" Workout (Upper Body)

Monday: "A" Workout (Lower Body & Abdominals)

Wednesday: "B" Workout (Upper Body)

Friday: "A" Workout (Lower Body & Abdominals)

Monday "B" Workout (Upper Body)

Wednesday: "A" Workout (Lower Body & Abdominals)

Friday: "B" Workout (Upper Body)

The above outlines one month of training. Simply plug in your favorite exercises are loading parameters. After this mesocycle, re-evaluate your strengths and weaknesses, and then modify your exercise menu and/or loading parameters and repeat the cycle. Try to base exercise selection on needs assessment, rather than making your choices arbitrarily. In other words, don't add exercises just for the sake of occupying time and space! Each component in your program should be there to accomplish a task or to solve a problem.

Progression

Although there are many good ways to progress the training load using this split, let me suggest a tried and true strategy that I've used with great success over the years. This entails increasing the training volume by 10% each week for three weeks, then reducing it by 50% on week four. Week five (i.e., week one of the second mesocycle) should be 5% more volume than week one, and then repeat.

Recovery

Measured amounts of aerobic activity on alternate days not only burns calories, it also enhances recovery from the strength training sessions. A nice way to implement these sessions is in a “three steps up, one step down” manner, as follows:

WEEK	TUE	THU	SAT
1	6 mins	8 mins	10 mins
2	8 mins	10 mins	12 mins
3	10 mins	12 mins	14 mins
4	5 mins	6 mins	7 mins
5	8 mins	10 mins	12 mins
6	10 mins	12 mins	14 mins
7	12 mins	14 mins	16 mins
8	6 mins	7 mins	8 mins

As you can see, every fourth week, the volume is reduced by 50% to facilitate complete recovery, yet over the long haul, the training volume continues to gradually increase.

If you’ve been looking for an effective yet simple-to-implement training split, this is what you’ve been looking for. In future installments, I’ll demonstrate a number of ways to “tweak” this split for various purposes and scenarios. Enjoy the program

BETTER NUTRITION: Tom Incledon Answers Your Questions

This month we've got more questions for Tom Incledon, MS, RD, Adjunct Professor of Kinesiology & Nutrition at Nova Southeastern University and research scientist at the Incledon Wellness Institute, INC. Tom's not just a scientist however— in fact, he recently squatted 600 x 2, weighing less than 220 pounds. Obviously, Tom has spent as much time in the trenches as he has in academia. On to our questions:

Q: Tom, how do you determine a client's caloric needs?

A: A quick rule of thumb is for men to multiply body weight by 11 (women use 10).

Then multiply this number by an activity factor somewhere around 1.3-1.7 for most people.

Then multiply this by 1.1 to allow for the thermic effect of feeding.

For most people you can set protein at 25% of calories or 1 gram per pound of body weight, whichever is higher. For extremely obese people some modifications may need to be made.

Set fat at 20-40% of calories, with 30% of calories being fine for most people.

The remaining calories should come from carbohydrates, which mathematically would amount to about 45%.

Divide the numbers above by six and you have what you should eat on your non-training days.

On training days plan your post-workout meal first. Try a 3:1 ratio of carbs to protein, no fat or fiber. Subtract these values from the daily totals. Divide the remaining numbers by 5 and this is what you eat for the other meals.

Q: What are your thoughts on the co-called "Mediterranean diet?"

A: This is the primary diet that research has shown (and is still showing) works to prevent or eliminate many of the diseases average people are facing. You can stay on it for life. I have never had a client that followed the diet and failed to accomplish their goals. However, I have had clients that simply refused to do any work and look exactly the same the first day I saw them or in some cases much worse. The analogy is saying "I want to get stronger and faster yet never do anything to improve those qualities."

Q: Recently, a client of mine told me that he was watching the Food Network, and there was a segment about an extremely thin, vascular-looking chef who ran a "totally raw" restaurant in San Francisco. Apparently this particular chef said that after he switched to an all-raw diet (i.e., no food is cooked whatsoever), his body fat fell to 2% and he had increased energy. In fact, one of his patrons said that after eating his all-raw dishes, she and her family were naturally wired, with boundless energy. Your thoughts?

A: A body fat percentage of 2% is unlikely. If he was very lean then traditional equations would no longer be valid to measure his body fat. Essential fat is estimated at 3%. This is fat in your brain, cells, organs etc that you need for survival. If you were to lose that essential fat reserve, it would not be a good thing.

There is ample evidence that cooking with high heat causes the production of various carcinogenic substances. This includes cooking with woks (ie stir fry), grilling, oven roasting, flame broiling, etc. Since cancer rates do not match incidence or type of cooking (other than low correlations), the body must have the ability to protect against itself these carcinogens. Perhaps a raw food diet places less stress on anticarcinogenic systems in the body. Alternatively, perhaps by eating raw food the chef simply reduced calories (due to less cooking oils consumed) and created a calorie deficit without realizing it. Obviously the chef in question had to have some type of energy deficit or he would not have lost the body fat.

Q: What is your experience with L-Glutamine?

A: Glutamine is a pretty impressive amino acid. More and more research is showing that it has a positive effects on improving immune function and decreasing muscle protein catabolism. You would not "feel" either of these effects. If you kept a detailed training journal, you would notice that over the course of a year, your down time do to sickness is less, and that you gained small amounts of lean body mass. It is also being used by some as a GH releaser, but that is complicated to explain as their are non-, low, and high GH responders to GH releasers.

BCAAs can also be used very effectively by athletes. Dosages really depend on the training phase, protein intake, calorie levels and whether or not carbs or ingested during the workout.

If you are taking in greater than 2.1 g of protein per kg of body mass with most of the protein (2/3) from animal sources than glutamine and BCAAs would be expected to have less of an impact. At protein intakes of 1.6 g or less, I would expect these supplements to have more value in terms of gains. Aside from protein intake issues, there are calorie issues. More calories = less of a need for protein (within reasonable limits).

In addition, to the above is the issue of nutrient timing. I have found the best results with my athletes/clients/myself ingesting glutamine/BCAAs/carbs during a workout. I have recently been adding glutamine to a GH releasing product that I am testing to see if it augments the GH stimulating properties. It is too early to tell, but so far I look ten years younger than I did last week (OK so I'm kidding!).

Tom can be reached at: hpsinc@mediaone.net

For more information, click HERE.

STAYING HEALTHY: Danger is Relative

Many of the most pervasive myths in the fitness training field revolve around danger—specifically, what exercises, maneuvers, and postures are safe, and which are not safe.

A few issues that come immediately to mind are breath-holding, allowing the knee to move "past the toes" when squatting, bringing the bar to the chest when bench pressing, squatting down to a bench, and pushing/pulling with the bar behind the neck.

In none of these examples can we make a definitive statement about whether or not the activity in question is safe or not. That is because the context of the situation has not been considered.

The Concept of "Optimal Stress"

For every given person at any one given point in time, there is an optimal intensity range of stress which will trigger a training effect. This also implies that there is also the possibility of insufficient stress (which will have no result, good or bad), and excessive stress (which will result in injury). So the take-home lesson is that stress can either be "good," "bad," or "inconsequential" depending on the situation.

Going back to the examples given above, it is true that for some people, pressing a barbell the neck can result in injury for some people. This is because when the bar is situated behind the neck, the internal rotators of the arm are stretched to a much greater degree than if the bar were pressed from in front of the neck. If your internal rotator muscles are long enough to permit this action, then you will be in little danger of incurring an injury. However, if these muscles are too short to accommodate the behind the neck position, the likelihood of injury is much greater. In the latter example, assuming that you are engaged in a flexibility program to lengthen the rotator muscles, the behind the neck position would now be a relatively safe option.

Choose Your Poison

Paradoxically, in some cases, a maneuver that is used to reduce injury in one arena may increase the likelihood of injury in another. For example, for those trainees with high blood pressure, breath-holding during intensive exercise is normally avoided to prevent blackout and other cardiopulmonary risks. However, the breath-holding maneuver also protects the spine from excessive compressive forces, and avoiding such a maneuver may substantially increase the risk of lumbar disk injury.

How Much is Too Much?

If, in any given situation, you're simply not sure how much stress is too much, simply err on the side of being too cautious. This conservative approach isn't likely to compromise the results of your exercise program: many studies have shown that novice exercisers derive significant benefits even when their training intensity is considerably less than what would be

considered optimal for experienced exercisers. Additionally, experienced exercisers are often over-trained, and experience a greater training effect from a temporary reduction in training volume. From this safe starting point, progress gradually (both in terms of volume and intensity) over successive workouts.

Additionally, whenever a new, unfamiliar exercise component is introduced, proceed with the assumption that your body is a “novice” with respect to the new exercise (even though you may be experienced in general). Failure to respect this precaution may result in excessive soreness and/or injury.

Monitoring & Assessment: An Ongoing Requirement

Even apparently healthy, experienced exercisers undergo constant fluctuations in their health status. Fatigue from previous training sessions, impending illness, stress, and other factors can quickly and dramatically increase your risk of injury. Remain vigilant by constantly monitoring your perceived comfort levels during exercise and "non-training" activities. Often, your body "knows" more how it’s doing than you do! So remain aware of sudden and/or unusual responses to exercise, such as muscle tremor, excessive sweating, and skin tone. If something doesn’t feel right, it probably isn’t. Err on the side of caution. Long and slow wins the game....short and fast invites injuries and extended interruptions in your training program.

CREATING A LIFESTYLE THAT SUPPORTS YOUR FITNESS & TRAINING GOALS:

Community and Accountability

The only downside of living a productive and effective lifestyle is that you become part of a very small minority. Being successful can indeed be a very lonely experience. This is why all effective behavior-modification programs have two common themes: 1) membership in a community of peers who are trying to accomplish the same thing you are, and 2) regular accountability.

Visualize the people you see in your gym or health club on a regular basis. How many of them have achieved a noticeable change in their physiques? No need to answer, the question was rhetorical and the answer is "none." Take-home lesson: your gym-going peers are NOT an acceptable community if you are in the pursuit of excellence! In fact, the most successful athletes and serious exercisers avoid commercial gyms, opting to train in their garages or basements with low-tech barbells and dumbbells.

Second question: besides yourself, who are you accountable to? Your friends? Your family? What kind of a standard to these people hold themselves to? Let's face it— if most people you know are on the McDonald's nutritional regime, then they aren't going to be too interested to hear about your macronutrient ratios of EFA intake! Similarly, when someone's idea of exercise is taking a stroll around the block, they'll have a hard time relating to heavy power cleans or plyometric drills.

Well, perhaps you can turn to your doctor for support in your quest to become super-fit. Or maybe not: Recently, a caller to the Dr. Dean Edell show asked a question about creatine dosing, and was admonished by the good Dr, who wanted to know "Why on Earth would you want bigger muscles anyway?" So much for community! Here is a so-called health expert who chides his patients about their desire to become more fit!

Weight Watchers is a great example of a behavior-modification system that realizes a high degree of success almost solely through the mechanisms of community and accountability. After all, the nutrition science behind Weight Watcher's is prehistoric compared to what you get by hiring bleeding-edge nutritional consultants like Tom Incledon or John Berardi.

Boiled down to its essential components, Weight Watchers utilizers a point system in place of caloric values for foods you eat. After a rudimentary assessment, you are given a point range that you must stay within every day in order to lose weight. eat whatever you want, just don't exceed your point range. Once a week, you attend meetings, where a leader provides answers to questions, motivational guidance, and token rewards for members who reach weight-loss landmarks (10 pounds, 20 pounds, and so on).

Now the question which begs asking is, "If Weight Watchers is as effective as it is using poor technology (i.e., nutritional standards) how effective would it be with good technology?"

For all the reasons listed above, I think highly-motivated athletes and fitness enthusiasts need a support group

New! Weekly Quick Tips and Q and A's

Hello everyone and welcome to this months newsletter. We've got a great surprise for all of you who are subscribers to *The Unnatural Athlete*.

If may have noticed that our business has taken off in recent months and we've been swamped— overwhelmed— with questions, emails, faxes, etc. Because of that I've decided to add another benefit for my readers— a weekly Quick Tip, and Q & A, along with valuable resources for you.

Now my whole "schtick" so to speak is to continue to give you the NO B.S. approach to this world we call "Fitness," and to steer you clear of all the crap and marketing hype.

What our "Quick Tips" newsletter will do is give you some, well..."quick" advice one something that is particularly bugging me for this week. It may be mistakes I see people doing, or an article I've read that is just plain wrong. Or it may be an article or resource I see that is of great value to you.

Also, the Q and A, will be a question from a client, an EDT reader, or something off of our forum of particular interest to you.

In my goal to give you the most value and keep you "on track" this will be just another "tool" in your arsenal to help you reach your goals.

Whether your goals are performance based, or are strictly for fat loss and physical transformation, your weekly "Quick Tips" will be one of the greatest resources you could ever have in your email box.

As always, if you don't want to receive your weekly newsletter (I'm not sure why that would be, but if it is) you can always unsubscribe at the bottom of the email. It will be sad to see you go, but I'll wish you well.

So get ready for your "Quick Tips" starting next week (Just in time for the Holidays)… See you then!

Connect To Your Purpose!

By Charles Staley, MSS
Director, IntegratedSportSolutions.Com

And Jonathan Edwards, Olympian

CHARLES: All too often I see people sabotage themselves in the middle of a training program. What do I mean by that? Well, often a client of mine will be on track to fulfill a goal and in the middle of the whole thing they will second guess the process and go off on some tangent thinking that the program they are on isn't working.

The truth is that training, and the physical adaptations to it, take time.

But what if there were a way to stop that deviation from the plan? You've spent the time deciding that the goal you have set is the goal that you want to reach. So you adopt a new plan, maybe a whole new way of life, a whole new set of behaviors. But along the way…you get impatient. You see transformations of people getting lean IN THREE MONTHS. But for you, it's taking a bit longer. Or your bench press is not coming along like the guy who says he put forty pounds on the bar IN TWO MONTHS.

But just because your goals aren't coming as fast as those around you doesn't mean that the path you are on isn't going to get you there.

Imagine if it were possible, if technology could allow you to see a videotape of yourself, sometime in the future...

The subject: yourself, in possession of your most important goal.

No matter what that goal happens to be, if you could see that video, if you could see that result clearly, you'd be completely unstoppable. Your endless quest for motivation would be a thing of the past. You'd never again succumb to the urge to eat crappy food or miss workouts. EVER. Imagine the power that video would have...the ability to see yourself with an incredibly lean physique— the kind of body that drops jaws and invites envious stares.

And even if things didn't happen overnight, you would still know that you were on the right path.

Sometimes the thing that sabotages us the most is our own impatience. We have fast food. Instant banking. Liposuction. Getting rich quick is way more sexy than doing things slowly. Things can happen so fast!

Great things can happen slowly too.

Unfortunately there isn't a way to get that video to throw into your

VCR, but there is a way to create that video, in your minds eye, and to stay on track when things aren't coming along as you think they should.

How To Stay On Track

JONATHAN:

Step 1: Have faith that what you're doing is the right thing to do and commit to a definite time frame.

In my own life I have ended up wasting a lot of time because I wasn't willing to wait long enough.

That may sound a bit confusing but it's true. By not allowing things to take it's course and give it the time that it deserved I ended up getting side-tracked and off course. My eyes were still on the goal but I had walked off course because I wasn't willing to stick it out and let it happen in it's own time.

As an athlete these things happen all the time. It is so easy to look at those around you and feel that you aren't up to par. So many would be athletes shoot themselves in the foot and often give up because they are not the best.

Let me give you an example: In Canada hockey is huge. It's not just a game, it's a way of life. At the Olympics last year one-third of the ENTIRE country watched the gold medal match against the US. Almost every kid grows up dreaming about the NHL.

But an interesting thing happens here that doesn't happen in the US. In Canada kids are almost forced to make a decision about their hockey future at age 12. If your son isn't on that traveling team by the time he's 12 you may as well forget about it. This is the prevailing attitude.

Now in the US kids START playing hockey at age 12. If they don't make the team it's not big deal. They have plenty of time to play in high school and then college, and then to the NHL.

But let me ask you this. How many of those US kids would never go on to play in the NHL if they made that decision at age 12? And how many Canadian kids are giving up on their dreams too early?

And how bout you? How many times have you "jumped ship" on opportunities or goals you set for yourself, way before you probably should have. Take your time and give yourself time to evolve…slowly.

Step 2: When The Going Gets Tough – The Tough Get Inspired!

We are never at a shortage for inspiration if we just take the time to look for it. You can turn on the TV each weekend and catch any number of sports related shows. Usually these same shows are sprinkled with "special interest" stories to inspire and wrench your heart.

I just picked up Chicken Soup For The Sports Lover's Soul. If you're ever looking for inspiration you need this book.

I always tell people that I have a problem. My problem is that I believe ANYTHING is possible. I believe that if there is something I want to do but I'm not sure about it, I can find an example of someone somewhere who has done, or is doing it with fewer resources than I have. So basically: What's my excuse? If I look hard enough I always find an example that allows me to think: If they can do it…I can do it.

Go get some inspiration when times get tough. It will keep you on track during those times of indecision.

CHARLES: A couple months ago I was looking for inspiration as I was rehabbing through an injury. I started reading about a competitive powerlifter (who's name escapes me unfortunately) with a prosthetic leg who squatted 600 pounds in competition. Now, we all chalk up our inability to squat 400 or to get our bodyfat into the single digits to bad genetics, a hectic work schedule, or whatever your favorite excuse is, but look: THIS DUDE SQUATTED 600 POUNDS WITH ONE LEG!!! Did you hear what I just said? Think about that for a bit and you might find yourself asking yourself some serious questions…

JONATHAN:

Step 3: Don't Set Yourself Up For Failure

If you're forty years old and you've never succeeded on a diet, but your goal this time around is to lose 20 pounds in the next 30 days and this time "you're going to do it!" Forget it.

Sometimes, we get sidetrack just because our goals are WAAAY out of whack with what we're capable of.

Know what you can and can't do in the time frame allowed. Personally, I work better when I have a deadline. I am not very good when I've got three months to complete something. While competing on the World Cup circuit one season we were "sent down" to work on relaxing and technique. We nearly killed ourselves! Because we just weren't wired to practice without pressure. We needed to race, and when we came back up to the World Cup we did extremely well.

We learned a valuable lesson that trip, and that was that we needed to have a fire under us to perform well. Something I apply to my life even to this day.

Step 4: "Underachieve" Your Way To Success

Yes, you heard me. Underachieve. We've all heard about the "overachievers" in this world. Well, I say to hell with 'em!

Underachieving is the key to success and I'll tell you why. In the business world there is a credo that reads: Under-promise and over-deliver.

By expecting less and receiving more, we are blown away at what has happened to us. By expecting little things we are inspired when big things happen.

Also remember that achieving goals adds fuel to your emotional fire and propels you toward even greater accomplishments in the future. By setting goals a little smaller than what you are capable of you will be surprised and inspired to achieve more.

Stairway To Shredded:
The Ultimate Kettlebell/Dumbell Ladder Superset
For Anaerobic Endurance, Fat Loss, And Personal Challenge

by Nick Radonjic, CSTS

This is not a workout for the faint of heart, literally and figuratively. It involves placing a #1-pood or 36-pound kettlebell (if you don't have a kettlebell, use a 35 pound dumbbell instead), a 53-pound kettlebell or 1.5 pood (if you don't have access to one, use a 55-pound dumbbell instead), and 2-pood or 72-pound kettlebell or (70 pound-dumbbell in the alternative) all in a straight line about two feet apart from each another.

Then after warming-up, begin as follows: snatch the 35-pound weight three times with the left hand, and then do the same with the opposite hand. Next move to the 55-pound weight and snatch that 3 times with the left hand, and then repeat with the right hand. After that is completed go to the 70-pound weight and do the same. Not done yet! Now go back and repeat everything, but now you'll merely do either kettlebell cleans or dumbbell cleans for sets of three! After everything is said and done, and you're through choking on your lung, you will have rested for 60 seconds and then repeat the superset for 3-5 times, with 60 second rests between sets.

What that really translates to is that each "set" will last about 2:00 to 2:15 seconds! Also, with the brief rest interval, you're really pushing. Assuming you do the 5 sets, you will have done 180 reps of volume of kettlebell or dumbbell snatches and cleans in about 15:00, with actual working sets comprising between 10:00 to 11:00 worth of work!

This translates into tremendous caloric expenditure, growth hormone release, and metabolic increase. In English, this means LESS BDOY FAT folks! And over time, a lower resting heart rate as well. Also, keep in mind that these are explosive movements which will translate into incorporating the fast twitch muscle fibers that martial artists, police officers, and other anaerobic athletes so rely upon. Do this "gauntlet" three days per week and you'll surely be on the way to losing that unwanted body fat. Good luck and keep training.

Nick Radonjic, CSTS, is an experienced martial artist (having studied a wide range of combat disciplines) who has posted a 405 deadlift at a bodyweight of 185. Nick is also a certified coach for Charles Staley's Private Coaching Group. If you'd like to inquire about membership in this select group of training partners, click HERE .

Why I Don't Want To Power Clean 315 Pounds:

Tough Love From Coach Staley

Do you think that motivation is a fundamental issue when it comes to successful exercise or athletic training programs?

I don't. In fact, I KNOW it isn't!

How can I say this? Easily, often, without hesitation, and with supreme confidence.

Look: You are exactly where you want to be right now. You've already taken the steps necessary to achieve your station in life, and not one bit more. And you're completely satisfied with that station in life. Even if you know you could be much leaner, stronger, faster (or whatever trait or quality that applies most to you) than you are.

Now you might say "Well, that's not true— I know someone who is 100 pounds overweight and he's miserable!"

To which I say, no, he's satisfied. Clearly, the benefit he's deriving from his behaviors still outweighs the drawbacks, or else he'd change those behaviors!

OK, let's use me as an example. I'm reasonably lean and my goals revolve around physical capacity— strength, speed, and so on. And I've got a particular affection for the power clean— probably because I'm fairly good at it relative to other lifts. Anyway, I sometimes catch myself telling someone that I'd "love" to be able to power clean 315 pounds (my current best is 275 pounds).

But whenever I say that, I'm lying. Why? Because, quite simply, if I REALLY wanted a 315 power clean, I would have already taken the steps necessary to accomplish that particular feat!

Now, if I wanted to find excuses for my inability to clean 315, I could probably find them. I'm 44 years old. I've had several very serious knee surgeries. I'm ectomorphic. I don't use performance-enhancing drugs. I got picked on a lot when I was in elementary school. Come to think of it, this could end up being a pretty big list!

I'm not really interested in excuses though. The fact is, I'm healthy, knowledgeable, athletic, my profession provides me with ample time and energy to train, I know lots of great Olympic weightlifters and coaches, I have a great gym right in my home....OK, this can potentially be a bigger list than the excuses list!

Which leads me to the following conclusion:

I don't really want to have a 315 power clean.

Man, that really hurt. But you know what? It's absolutely true. I simply cannot escape the plain fact that I have not done what it takes to achieve a 315 clean. Perhaps, someday I will, but for now, it's obvious to me that the enjoyment I get from not having to train in a way that would permit me to clean 315 outweighs the enjoyment from being able to actually do a 315 clean.

And that's OK! And there's a great lesson here: maybe some of your goals aren't appropriate for you, because they don't really mean enough for you to take action.

Question: What's your #1 goal? Right now. Do you have one? Statistically, you probably don't. But if you do, here's what I'd like to have you consider: how important is that goal to you? Have you arranged your entire life in a way that supports your accomplishment of that goal?

I certainly haven't (in the case of the 315 pound power clean).

This article is primarily meant to inspire some self-analysis— not to provide hard and fast answers. However, if you'd like some avenues to pursue some serious reflection, here are a few:

1. Develop self-reliant behavior— create the mindset that all of your limitations are self-imposed (because they almost certainly are)

2. Get out of your comfort zone, and find a way to enjoy it. When your stomach is growling because you're hungry, think "Perfect! This is what I need to experience if I'm going to drop that extra bodyfat!"

3. Find out what works, and then do more of it. Find out what's derailing your efforts, and do less of that.

4. Cultivate dissatisfaction. After all, that's why you're where you are now— you're satisfied with it

5. Seek out and cultivate empowering personal relationships. The people you spend the most time with have a profound effect on your life. Make sure it's a profoundly POSITIVE effect.

I hope this article has been instructive for you.

Perhaps you're thinking that the psychology of motivation is a lot more involved than the way I've presented it here. Of course, people who are excuse-makers always think that way. As long as you've got enough reasons why you can't succeed, you never will.

Want More "Tough Love"? There are currently a few spots available in Charles' Private Coaching Group. For more information, call Julianne Van Valkenburg at 800.519.2492.

Coach Staley's Pre-Packaged Food Diet

This Week's Question:

"Hey Coach,

Hope all is well wherever you may be. We are still recovering from hurricane Isabel here in the Washington DC area.

My question to you is...

I have always tried to eat 4-5 small meals throughout the day. However, I often find I am not really hungry at some of those times. Is it better to eat a set pattern(4-5 small meals a day evenly spaced out) or eat sensibly when one is hungry?

Thanks for you time and input. You are always the best.

Thanks,

Adam Clarke
Washington, DC"

Coach Staley Responds:

Great question Adam.

As you might anticipate, the answer to your question is dependant upon your objectives. However, I'd be inclined to eat every 3 hours, no matter what, hungry or not. I'd even suggest getting an Ironman watch and setting the timer to go off every three hours.

You might argue that for people wanting to drop weight, eating only when hungry would be the superior strategy, but I disagree, and here's why: eating less frequently will slow metabolism. This is bad not only because your rate of calorie burning will decrease, but ALSO because healing and recovery are also metabolic processes! I don't think I've ever heard anyone address this issue so it might as well be me.

THE THINGS YOU'LL DO WHEN YOU'RE FRIGGIN' STARVING...

Another downside of decreased meal frequency is low blood sugar— before you know it you're so hungry that you could eat the business-end of a dead skunk, and you end up plowing through a quart of ice cream. Then, if you're like most people, you skip your workout because you feel completely bloated and half-comatose from your binge-fest. For a lot of people, one bad meal sets up a cycle of multiple bad meals and missed workouts, so save yourself the grief and just eat every three hours.

Now, here's how you fine tune things if you're looking to drop weight: control energy input by counting calories, NOT by decreasing meal frequency. Keep track of your calories and if you're not dropping about 2-3 pounds a week, keep decreasing each meal's caloric value by 50 calories until you do.

"But I don't know how many calories I'm eating!"

If you did indeed catch yourself saying that, here's what I want you to do:

EAT ONLY PRE-PACKAGED FOODS FOR 30 DAYS.

That's right— I'm totally serious. The reason I'm asking you to do this is two-fold:

1) Pre-packaged meals are easier and faster to prepare. It'll make your life easier while you adjust to a lower calorie diet.

But more importantly...

2) Pre-packaged foods have the calorie content right there on the label. No more guesswork. You know EXACTLY how many calories you're eating each and every meal. Which will allow you, once and for all, to figure out how many calories you should eat in order to drop weight. It should take about 30 days to get a good feel for this, and you'll get amazingly skilled at estimating the caloric value of any given food. In my own case, I can usually guess the calorie content of anything I eat within 98% accuracy.

Once you figure out your calorie needs, you can gradually broaden your food selections. Start using a food finder book (I like the Art Ulene Food Counts book that you can find in most big drugstore chains).

UNDER-ACHIEVING YOUR WAY TO SUCCESS

Remember, there is no such thing as perfection, only acceptable benefit-to-drawback ratios. In this, case, I believe the benefit of knowing your exact fuel intake is worth the drawback of decreased nutritional content of pre-packaged foods, especially since this is only a temporary tactic.

BUT THE SCALE DOESN'T TELL YOU EVERYTHING, RIGHT?

You may correctly point out that bodyweight can be deceiving and that bodyweight alone doesn't tell you if you're getting leaner. I agree. If this is of concern for you, here's my "duh!" way of estimating body composition without having some university student immerse you in a big vat of water, or having Bambi the trainer down at the gym pinch your fat-folds with a big set of electronic pliers: every day, under the same conditions (same time of day, same state of undress, same proximity to your last meal, etc), weigh yourself and then also measure yourself at the area where you tend to accumulate bodyfat. For men, this will probably be

your waist. For women, probably your hips. Then divide your weight by your waist measurement in inches.

The bigger the number you get, the leaner you are. By way of example, if last month you weighed 211 and your waist measurement was 34.25 inches, you'll get a score of 6.16. Now let's say that this morning you weighed 204 and your waist was 33.25 inches. Are you any leaner? Well, dividing 204 by 33.25 gives us a score of 6.13. So actually you're slightly fatter even though you lost 7 pounds.

On the other hand, let's say this morning you weighed 208 and your waist was 33.5 inches, you get a score of 6.20— you're leaner, even though you lost only 3 pounds.

Now this method doesn't tell you your bodyfat percentage. But who cares? All bodyfat measurements have a significant degree of inaccuracy anyway. What my method WILL tell you is whether or not you're going in the right direction. And isn't that all that really matters?

"Your Body, Your Business:
The Hidden Connection Between Your Waist-Line and Your Bottom-Line"

Joe Polish interviews Sports Performance and Physique Transformation Expert Charles Staley

Joe: Hello, friends and clients, this is Joe Polish. Welcome to another edition of The Genius Network interview series. Today, I'm going to be interviewing a genius in a different area, unlike what I normally do, which is building successful businesses through marketing and proper ways to promote yourself and manage yourself and all that good stuff.

I've got somebody on the line who is one of the world's leading experts in fitness, exercise, nutrition, and a bunch of other things regarding staying in phenomenal shape and training some of the world's top athletes and just everyday normal people.

His name is Charles Staley. You've heard a little bit about him at the beginning of this interview. Charles, can you hear me okay?

Charles: Yes, Joe. Thanks very much. Those were nice words. I don't know if I'm a genius, I'm maybe just possessed.

Joe: Well, at least for now, I guess we'll let what comes out of your mouth dictate what the people believe to be genius. At least right now, at least we'll have their attention. They're thinking, "Man, this guy's really smart."

Charles: Works for me.

Joe: Actually, I met Charles probably, the first time, about a year and a half ago, through our friend Jeff Smith. You know a lot of people that I know, because I've done some work in the nutrition and fitness world. You do really know your stuff. I actually sat through one of your presentations and I think you're extremely bright, extremely intelligent, and you're able to communicate what is confusing for some people in a very easy-to-understand way.

The purpose, of course, why I wanted to interview you is, aside from being very smart in training the brain on how to run a successful business, if you neglect your health and your body that will certainly take a toll on your ability to function in all other areas of life. And I think we could share with the listener today just some really good, useful information that could help them be more productive and think clearer in all areas of their life. And that's what you're certainly – in my opinion – a genius on.

Charles: Thanks so much.

Joe: Let me get right into it. I first want to talk about exercising, because I know some people do and some people do not. Obviously, people are capable of going through life without exercising, but obviously that's not really a smart path to take.

Charles: Yeah. And the clear evidence of that is that the last Surgeon General's report I think said that 60% of American adults are obese at this point. I live in Las Vegas. So around here, it looks more like about 95%.

You can live without exercising. And obviously, most people do. But my interest is how do you get somebody to perform optimally, whether they're an athlete or an entrepreneur, whatever it is. It's kind of interesting because if you talk about the definition of fitness, which maybe is a good place to start because very few people understand what fitness means. Most people, if you say to somebody's "fit," most people assume that that means that you look great or you have low body fat or you have good fashion sense. It's kind of strange.

But what fitness really means is having the ability to get through the requirements or the needs of your everyday life with a little left to spare in case of emergency. And that comes, actually, from the International Sports Sciences Association that I do a lot of consulting and teaching for.

So it's kind of like when you're a hammer, everything looks like a nail. I train athletes. So to me, everybody looks like an athlete. And that's kind of my paradigm. I know you have a lot of entrepreneurs and businesspeople listening. To me, if you're a carpet cleaner or if you're a chiropractor or if you're an office person, whatever it is that you do, that lifestyle of yours takes a toll on you. It sounds funny, because if you imagine you're a secretary and you just sit at a desk all day, and you're like, "Well, how hard is it to be able to deal with that kind of lifestyle?" Well, it is difficult because, just as an example, one of the most damaging things you can do to your body is sit.

Joe: Just sit?

Charles: Yeah. Just sitting is one of the most destructive things on your body imaginable. It does a couple of things. You actually get this condition called "static fixation" in your low back. So it's kind of like if you take your little pinky finger and pull it backwards. You haven't injured yourself, but if you kind of hold that finger there for 3 hours and let go, you're hurting. That's static fixation.

So it is extremely damaging on your spine to sit for long periods, which most people do. What happens is that there are certain muscles in a seated position, like your hamstring and hip flexors, which become chronically shortened. And then that alters your posture. The curvature of your spine is altered. It doesn't absorb loads as well.

So even though most people think that fitness is something that only applies to people who want to squat 500 pounds or Olympic athletes or whatever, everybody's profession, everybody's lifestyle takes a toll on their bodies.

Joe: That's very interesting, just to think about what you just said there. Me, I do exercise. Of course, I also do spend a lot of time writing. And when I do write, I'll sit for long periods of time. Do you have recommendations for people that find themselves just sitting for periods of time? Should you stand up every hour?

Charles: Yeah. The problem with sitting is not so much the seated posture, but the fact that you remain motionless for such long periods of time.

It's kind of funny. But if you ever notice older guys, they have no butt anymore. One thing that happens as you're sitting, the weight of your body actually closes off the blood supply, the superficial capillaries to the glute muscles.

Joe: Interesting.

Charles: Yeah, it is kind of interesting.

Joe: I could see the women on the line that would be listening to this right now going, "Well, that doesn't work for me!"

Charles: Yeah, really. I don't know what happens in that case. It's like a hormonal thing or something. I actually have a couple of thoughts about that.

But the thing to do is to just keep moving. So if you can actually sit on those exercise balls that people use in gyms, those Swiss balls, that's a great thing to sit on because it keeps you moving. I also advise people, when they're home after work at night, to not sit on upholstered furniture. What happens is you kind of just sink into that sucker and you don't move.

If you sit on the floor instead, it's just a little bit uncomfortable and it kind of keeps you moving.

Joe: Interesting.

Charles: So every 20 minutes or so, try to change your position. Open your legs up, bring your legs in, straighten your legs, stand up. It's just the motionlessness aspect of it that's really hard on the body.

Joe: Gotcha. I want to go into more questions on what you just said there. One thing I do want to ask you is what would be one of the ramifications of not exercising, ever, just people who literally do not exercise? What can they look forward to, or what type of damage – if you want to use the word damage – is that going to do to their longevity to their lives?

Charles: Well, it creeps up on you. Right? So this is why there are some things like, for example, if you don't breathe you're going to get some feedback about that really fast. If you don't eat, you're going to get some feedback on that really fast.

But if you don't exercise, it really takes months, and sometimes years, for it to catch up to you. But it's like there are certain things, if you read Stephen Covey's work and when he talks about Quadrant 2 activities.

Joe: Let's explain that, if you could. I know exactly what you're talking about, Quadrant 2. But just for people that may not be familiar with it. Because I think it is a really neat model.

Charles: I'll always remember the first time I read this. And I was like, "Wow, that is profound."

But what it is, is that people confuse urgency with importance. So the phone rings, it's urgent because there's like a time constraint. But it doesn't mean it's important.

A Quadrant 2 activity is something that's important, but not urgent. If you have a hard time finding time for Quadrant 2 activities, it usually means that you don't plan your activities well enough. If you're planning, the more that you spend on Quadrant 2 activities, things that are important but not urgent, the more it kind of frees up your time and everything.

So I consider exercise to be a Quadrant 2 activity. It's one of those things that it's never urgent. And maybe we can talk later about the whole idea of scheduling workouts and not just saying, "Tomorrow I'm doing a workout," but like, "Tomorrow at 1:00 I'm doing a workout." There's some importance to that.

But Quadrant 2 activities are things that they must be acted upon or they will act upon you. So this really comes down to proactivity.

But to be more specific about your question, people who exercise regularly, and I know, Joe, you being one of those people to attest to the fact that just your general level of energy, productivity, creativity is dramatically greater when you're exercising. Life is holographic. Your body needs to move. If you don't do that, it's like having a wheel with the spokes missing.

Another way to look at it is if you have a spider web and you kind of touch one part of the web, it's not just that part that's disrupted; the whole web is disrupted.

So you really cannot separate the physical part of your life from the mental, emotional, psychological parts. They're all intertwined.

Joe: I agree. In the world of marketing that I teach, one thing that I say all the time is that, "The change is only as strong as the weakest link," which everyone's heard that.

Charles: True.

Joe: You combine a very smart businessperson and you make the weakest link they're completely fatigued, they're lethargic, they're in horrible shape, they have no energy, really, how well are they going to be able to use that wonderful device called their brain?

Charles: Great example. Last night, I was out looking at cars. I go up to this dealership and the guy comes up to me, and he has a huge gut on him. And there's a couple of other sales guys outside smoking cigarettes and stuff. And it's like, "Wow!"

So that's the other part of it. Unfortunately, there is a great episode of 20/20 the other night. I think it was 20/20. I might be wrong on that. But they were researching the effects of your appearance on getting jobs and your ability to sell things, all those sorts of things. And it really is profound.

Joe: Oh, yeah.

Charles: We live in a visual world.

Joe: This is a weird example, but I have a pair of those silly Austin Powers Billy-Bob teeth, where they're like the fake teeth. When you alter your appearance, it is amazing how people treat you differently. And these things are just hysterical. But I'll throw them in because I find some sort of amusement in messing with people. And I'll go into a restaurant and try to order food, and they just stare at you like, "Oh, my god!" It's amazing how differently people treat you with just dental work, let alone how you look, how you respond physically.

Unfortunately, it would be nice to say we live in a world where no one has those types of judgments and stuff. But the fact is, that's reality and people do.

Charles: And you have to deal with reality.

Joe: Exactly. That's it. You have to deal with reality.

Charles: And most people's impressions, when you see somebody who is severely out of shape, you just assume the person doesn't have any discipline. And it's not necessarily the truth. Different people have different burdens in life. And it's not across the board true, but you have to deal with the perception that most people will have.

So I just view this as if you're a lawyer or a chiropractor or a carpet cleaner, or whatever it is that you do, that first impression is just huge. It's going to affect how much money you earn, flat out.

Joe: Yeah. So obviously, our purpose of the interview here is not to tell anyone they have to exercise. Of course, like you said, you can go through life and not exercise. The point is, what I hope we can impress upon people, is that if you engage in this activity, if you learn what it is that we talk about and follow through with it, because this isn't something that you do one time and you're fixed for life. This is literally changing a lifestyle.

What I'd like to encourage all my listeners to do and the type of knowledge and expertise that I want to bring to them via this interview is they'll see the positive benefits and reasons, so that they can really apply this and know how to apply it to their life so they can get so many great benefits that you've seen a thousand times over and over again.

Charles: Sure.

Joe: I don't know where I first heard this. I don't know where it came from. It was with someone that actually interviewed on the subject of health. And they said, "If you don't take time out for exercise and taking care of your health now, you're certainly going to take time out for it later."

Charles: That's right.

Joe: And that always stuck in my head. There's times I just don't want to go work out. I don't want to refuse eating the cheesecake or whatever. But the fact is, to a certain degree, if you don't, there's going to be consequences to that. And I prefer the consequences of going in and working out and getting a good workout, and eating healthy on as frequently and consistently of a basis that I can. I derive great benefits from that. And that's not to say I'm not perfect. That's not to say I don't eat junk food every once in a while. Once in a while, I do.

Charles: Same for me. But the keyword is "once in a while."

Joe: Exactly.

Charles: If you do the right things most of the time, the once in a while's don't catch up to you. We're not talking about all or nothing, by any means.

Joe: Okay. I want to go into the reasons why people don't exercise. Before I do that, though, since we talked about people that would sit around or sit a lot in their jobs or their activities, what about people that are doing manual labor all day.

For instance, as you know, many of my clients are in the service business and they're out working all day. What's the difference between that type of work and actual exercise?

Charles: Well, it's a big difference. The way I look at it is if you're doing manual labor, that is, in essence, a form of exercise. Everything has positive and negative ramifications. There's nothing you can do, eat, think that has only positive ramifications. There's always positive and negative.

So if you're doing a very heavy, physically-taxing job, there could be positives to that. You might improve your aerobic fitness to some level. You may increase your metabolism to some level. You may be producing some endorphins, etc., etc.

However, let's say that your physical job is a repetitive job. I don't know. You're a UPS worker and you're lifting boxes in a certain way like all day long or something. There are difficulties in that. There are sports that do that, as well. If you're a tennis player or if you're a shot-putter or a power lifter, or whatever it is that you do, you end up with, oftentimes, repetitive overuse-type injuries from doing the same kind of motion all the time.

The way I explain this to athletes is I'll take a paper clip and I'll kind of straighten it out into a straight piece of wire. And I'll take it right in the middle and I'll just keep bending it back and forth until it breaks. It's almost a similar kind of situation to that.

So whether you're an athlete or an entrepreneur or a professional in some kind of thing, the role of supplementary training is to improve the primary activity, if that makes sense. Or to counteract the negative effects of the primary activity.

For example, if you're doing a certain type of heavy manual labor, you might be in a situation where your hamstrings get real short. Or you might be in a situation where you're at a cash register and you constantly turn to the left, toward the customer. Can you imagine like you're facing forward on your computer, and then like 3,000 times a day you turn to the left to take money from the customer, but you never turn to the right.

Joe: Exactly.

Charles: You don't have to know anything about anatomy or physiology to know that that's going to set up a problem.

So then your supplementary training should address that. If you constantly turn to the left, you're going to have certain muscles in your body that are kind of overstretched and weak, and muscles on the other side of the body that are tight and kind of hypertonic.

So there are ways that physical exercise programs can be set up to kind of counteract that, if that makes sense.

Joe: No, that makes total sense. I'm sitting here thinking about the hardest manual labor that I ever did for a job, for a business, was when I actually owned the carpet cleaning company that I eventually sold. Back in 1994 was the year I actually sold it. But in the early 1990's, before I had any employees and when I just started it, I did a lot, a ton of cleaning myself. If you can imagine the average person that's never cleaned a carpet before probably is not aware it is very hard physical activity.

Charles: Sure.

Joe: You drag a wand across carpets. And usually, you'll use either your right or left side, depending on what's your dominant side, if you can imagine a vacuum going back

and forth, back and forth on one side of your body. There's people out there, be it carpet cleaners or plumbers or whatever, they're doing certain activities like you explained all day long, every day.

So what would a guy like that do to – we can get into this later, if you'd like to address it – in terms of a workout. How would they compensate for that?

Charles: Sure, flexibility would be a big part of that. Whenever you're doing a repetitive motion like that, you're going to have some areas of the body – and this is dependent on what it is that you're doing repetitively, all day long – flexibility is a big part of that. When certain muscles get short, it alters your posture. When your posture is altered, you don't bear loads and absorb forces and shocks as well as you would ordinarily. And it does set you up for injuries. So that's part of it, as well.

Also, there's a motor quality called "maximal strength," which is essentially the most force you can produce for one all-out effort. It's like what we call a "1RM" in a weight room. If anyone out there has ever tried to see how much they can bench-press for one repetition, that is maximal strength.

When I talk to chiropractors, I always will say, "What's your most difficult adjustment?" There's a sideline, I think it's like a sacral adjustment that they do, that takes the most physical energy. I always explain, "That adjustment takes a certain percentage of your maximal strength in that posture, in that position. So let's assume that that maneuver that you're doing – and for anyone out there who's listening, you can easily sort of extrapolate this to your own situation – whatever that repetitive thing is that you do all day long, it takes a certain amount of your maximal strength in that position.

So let's just say it takes 35% of your maximal strength. Well, you can do that activity for so many times before you're just going to be completely fragged out.

However, if you can improve your maximal strength significantly, which for most people is very easy. I've had countless cases where, in a period of months, I've doubled people's maximal strength. So if you've doubled the person's maximal strength, then that activity that used to require 35% of their maximal strength now requires 17%. It's intuitively obvious. In effect, it would be like if you're moving that wand across the carpet, it would almost be like the wand weighs half what it used to or that the resistance against the carpet is half what it used to be. And obviously, that takes much less toll on your body.

Joe: Say it again?

Charles: Intuitively obvious?

Joe: Yes.

Charles: Yes.

Joe: I just wanted to hear you say that. And if that's not intuitively obvious for everyone listening, they need to rewind and just listen to the last minute of what you just explained. That's very powerful.

Charles: Let me put it in weight room jargon, just so you can understand.

If you can bench-press 300 pounds and I can bench-press 500 pounds, who can do more reps with 150? It's intuitively obvious. So I'm just applying that concept to anything that you do in life.

Joe: Yeah, that's very good.

Charles: It's kind of interesting. When I listen to you talk about marketing, I realize that the way that most people market is 180 degrees from the most optimal way to do it. And when I listen to Kiyosaki talk about money and investing, I realize that the way that most people invest is absolutely completely backwards from what is optimal. And it's that way in all professions. And it's the same way here.

Going back to the chiropractic example, here's this person who does adjustments all day long and they're completely whipped at the end of the day. So their natural assumption is, "I need more endurance." Do you follow?

Joe: Yeah.

Charles: So then they start doing aerobic training. Aerobic training has a place. But the fact of the matter is aerobic training doesn't do much in terms of burning calories, it doesn't do much in terms of making you stronger, etc., etc. So there's a better way to do it.

Joe: Good. We're going to talk about that. And before we talk about that, I want to cover what I mentioned earlier. Why don't people exercise? What are some of the excuses? You've probably heard more than I could ever come up with if I had a whole day to sit around and come up with excuses. Let's go through that.

Charles: I have this term that I say that people think they are resource-deficient. They're 5 kind of main excuses that people use in terms of not exercising, and they're all resources.

The first is time. Time is a resource. It's kind of a funny thing. I think we take our cues. If you want to be good at whatever it is you want to be good at, it's kind of a natural thing to look at people who seem to be successful at whatever it is that you want to be successful at. And then basically just mimic what they're doing.

Sometimes that works and sometimes it's maybe not the best approach. But I think what happens is a lot of people get this idea that exercise takes a lot of time for a couple reasons. One is that you look at the people who have the best bodies when you go to the gym or to the health club, or wherever you're going, and you look at the people who have the best bodies, it's like every time you go in, there they are. It seems like they live in the gym.

But the reason that happens is these are people who just love to work out. They have an autotelic approach to what they're doing. Which, by the way, I think is essential. You're never going to get good at something unless you learn to really enjoy doing it.

Joe: Define autotelic.

Charles: I won't even begin to pronounce the author who wrote the book called *Finding Flow*, where this comes from.

Joe: Csikszentmihalyi, or whatever his name was. Yeah.

Charles: Too many consonants and not enough vowels. It's one of those kinds of names. But what it means is you do things for its own intrinsic reward, rather than for a secondary gain.

So if you're in the gym exercising and your whole motivation is to look better, that's not going to last you long. It might last a couple of months, while you're enthusiastic. It's not going to last. You've got to learn to enjoy it for its own intrinsic value.

So once you become one of those people, you love spending time at the gym. I love being in gyms. I love the smell of it, I love watching people, and I love the feel of weight in my hand, so forth and so on.

Joe: You have to be deranged in order to love the smell of a gym, Charles. Are you kidding me? I'm just joking.

Charles: I never said my way was the best way. I just tell you what it is.

Joe: No. But the point is, you developed a liking to it.

Charles: Because I've seen the benefits. Over years and years, I see what it does for me. I'm sure you've experienced that to some level, as well.

I never used to understand the value of marketing, and I could never really get juiced up about it. But once I saw what good marketing could do for me, then I got juiced up about it. So it's the same kind of thing.

But the point of it is that if you're a novice exerciser, you have to be careful about taking cues from these people who spend 3 hours a day in the gym. You don't need to be spending anywhere close to that kind of time in a gym. These are people who are just chatting and reading magazines. If you're in the gym much more than 40, 45 minutes at a time, you're not working out you're just making friends.

Joe: Okay. So the maximum time that you really need to in terms of just exercises, if you're spending more than 40 minutes in the gym, you're probably doing more than just…

Charles: Somewhere. There's no absolute number. But if, from the moment you walk in to the moment you walk out, if that's more than an hour, something's not flying straight about what you're doing. There's just no question about it.

We can talk today, on this interview, about various things you can do from a technical perspective to make your workouts more efficient.

The other thing about time that's kind of interesting is that most people are looking at the wrong kinds of exercise in terms of aerobic-based exercise and high-repetition-to-failure type stuff. Those forms of exercise do take more time, but they're also less efficient.

So it's partly looking at the wrong people and partly doing the wrong kinds of exercise.

Joe: Gotcha. Excellent. What is another excuse?

Charles: We were talking about energy before, so that's the second resource. It's kind of a funny thing. In exercise physiology, we have this thing called "Sherington's Law." And what that simply means if you can imagine curling a dumbbell, your bicep muscles contracting to lift that weight. But the muscle on the other side of the arm, the tricep, the

back of your arm, has to relax and lengthen in order to permit the bicep to do its work. If you can imagine, if you're trying to contract your tricep and bicep at the same time, you can't bend your arm.

So one of the things I do, I've actually got a private coaching group where I directly supervise people's training at a distance. One of the things that we do, in terms of exercise programming, is that we have a portion of their exercise is what I call "antagonistic pairing." In other words, instead of going to your first exercise, which might be a barbell curl, and doing your three sets of 10 and then moving on to the next exercise, what you'll do is you'll do a set for the biceps, and then you'll rest, and then you'll do a set for the triceps. And then you come back to biceps.

What is kind of interesting about that concept is that you do the bicep curls, and then let's say you do tricep push-downs. And what's interesting is as you're doing the tricep push-downs, you're forcing a faster recuperation of the bicep muscle than had you been doing nothing. It's really paradoxical to what most people would think. Here you are doing more work, and that's allowing the muscle to recover faster.

So what I want to say about Sherington's Law is that it works in the macrocosm, as well. One of the things you always hear from people who have managed to adopt an exercise program for 6, 8 months, the biggest thing, the surprise, is that they have more energy. And they were always afraid they wouldn't have enough energy. It's kind of like a battery. You have to use it in order to recharge it. And the body is very much that way.

I do a lot of writing and speaking. And I can tell you personally, from a creative point of view, I'm really at my best immediately following a workout. Everyone I've talked to, you mentioned Jeff Smith earlier, he's had that same experience. I don't know if you have, but it's very common.

Joe: Oh, yeah. Actually, that brings up you wrote the book *Physically Incorrect*, which is just filled with great stuff. You have the concept called "Fatigue Seeking."

Charles: Yes.

Joe: Talk about that. I think this is probably an appropriate time.

Charles: Yeah, it is. And this is kind of the greatest thing, and it's a great example of how there's kind of a weird phenomenon that when people walk into a gym they like lose half their IQ the moment they walk through the door. It's so strange. And when you look at what people do in gyms and line it up with common sense logic from other aspects of life, it's just kind of funny.

But if you're an entrepreneur, we were talking about carpet cleaners, if you're going to arrange your day, if you're going to set up your activities for the day, are you going to sort of arrange your day's activities in a way to make your day just as hard as possible? In other words, maybe instead of having the machine on the floor, rolling on wheels, maybe you could strap it to your back and add some weights to it, maybe turn up the client's heat to like 120 degrees.

Joe: Well, you just move to Arizona if you want that heat.

Charles: Yeah. Tie your shoes really tight, so they hurt. What you would do, no matter what you do in life, is you organize the day's activities so that you can accomplish as much as possible. Right? That's obvious. This is like my fourth dumb take on it.

But the funny thing is when people go into a gym, they organize their workout in a way so that they just can feel as bad as possible afterwards.

Joe: So like you're just completely fatigued and burned out.

Charles: And then they're happy.

Joe: It's an interesting concept. Of course, I'm probably just as much a victim of having done that as Jeff Smith, and probably millions of people in like the ghost of workouts past.

The point is, I used to go in and I would do everything to failure and I would try to just fatigue the heck out of myself. The no pain-no gain type of thing.

I've read and I've heard your take on this. I think it's really interesting. And, again, it's a paradigm shift for most people, so I would like you to elaborate on it. Talk about the belief of no pain-no gain, the difference between going into your office and not trying to work so hard that you just want to drop on the couch and go to sleep. When it comes to working out, playing devil's advocate, wouldn't going in and beating your butt to the ground in terms of a hard cardio workout or a hard weightlifting workout do more to…

Charles: This is a really great subject, and it's really interesting.

This morning, I was coming back from breakfast and I see this guy that looks to be about 47 years old, not particularly fat but a big, kind of heavy-set guy, running on the side of the road in Las Vegas. The guy looks completely miserable. And I notice he's got kind of not knee braces, but neoprene wraps over his knees.

Just as an interesting exercise, whenever you see people jogging, just look at their knees and notice how many of them are wearing wraps on their knees.

But in any event, if you take a guy like that and you do a run for a half-hour, 45 minutes, when you get home you feel completely whooped, you're sweating buckets, and you say to yourself, "Man, I just did a great workout and that's doing lots of great things for me."

But what people don't realize is that aerobic exercise burns almost nothing in terms of calories, compared to resistance training, compared to sprinting, more intensive forms of exercise. The reason for that is that you've got different kinds of muscle fibers. I'll keep this on kind of a simple level, but if you look at a hamstring muscle or a bicep muscle or any muscle on your body, just to give it two categories, you have fast-twitch muscle fiber and slow-twitch muscle fiber. Fast-twitch muscle fiber is kind of like if you've ever looked at your Thanksgiving turkey, it has white meat and dark meat. The white meat is usually in the wings. That's because it's fast-twitch muscle fiber. And what fast-twitch fiber does is it can contract very strongly but it has very poor endurance. It requires a lot of tension, brief, high levels of tension to kind of activate it.

And then, if you look at that turkey's dark meat, that's slow-twitch muscle fiber, and that's usually the legs. If you think about a turkey's legs, they never have to do a whole lot but they have to be kind of constantly in motion all day long.

So in every muscle, you have a certain proportion of fast-twitch fiber and slow-twitch fiber. So different kinds of exercise trigger different kinds of muscle fibers. It's probably obvious that if you're doing aerobic exercise, that is a slow-twitch fiber type of exercise. Whereas if you're sprinting or doing weight training, that tends to activate the fast-twitch muscle fiber. And it is the fast-twitch muscle fiber that burns calories, predominantly. And that's the key thing that you have to think of.

So the paradox here is that if you're doing correctly-executed resistance training, it doesn't feel like you've been hit by a truck at the end of the workout. You really don't. I almost never sweat during a workout.

On the other hand, you are targeting muscle fibers that, when challenged, burn a ton of calories; not just during the workout but most significantly for 24 hours after the workout. If you've ever done exercise where you were sore the next day, that soreness is a sign of cellular damage and your body is kind of replacing structural proteins. And that process requires calories.

Joe: Is that good or bad, to be sore?

Charles: Well, it's a matter of context and it's a matter of extent. Soreness is fine, but doing things purely to provoke soreness is the problem.

Joe: Gotcha. No, you're right. All of this, of course, is in context. I think you're doing a great job of explaining it in layman's terms. And even having been exposed to you and to having worked in gyms in the past and have done an enormous amount of consulting in the fitness industry, still, even just listening to you now and picking up all kinds of useful mindsets on this subject, I think this could change the perception of so many people that equate working out to pain and fatigue. And the reason they don't want to do it is if you worked all day, who wants to go in and beat themselves up in a gym or do a hard workout, if they don't work out at a gym. Or, if you're going to have a busy day ahead of you and you prefer to exercise in the morning, who wants to start the day where you're totally burned out? And if people could work out this way and derive the benefits that exercise does, I think this could change everything about how they approach it.

Charles: I think so, too. I love doing interviews like this, because it's just a great opportunity. Everybody out there has this kind of mindset. Even Olympic athletes that I work with have this kind of mindset and are always shocked at the brevity of the workouts that we do and the fact that they're not busted up.

If you do a workout, there's two aspects to the workout. One is volume and the other is intensity. It's very simple. Volume is just the total amount of work that you do. If you lift 100 pounds for 10 reps, that's 1,000 pounds. That's volume.

Intensity is the difficulty. So it's qualitative and quantitative. So intensity is the difficulty. If your best bench press is let's say 150 pounds, then if you're lifting 100 pounds that's 66% of maximum.

So the problem is when you're a fatigue seeker and your goal is just to feel like you got hit by a truck after the workout, you will intuitively go towards volume and just try to do as much work as you possibly can.

The more voluminous physical exercise is, the more it tends to activate slow-twitch muscle fiber which, again, generally does not have much capacity to grow, doesn't have really much of a response to the metabolism and so forth.

So the paradoxical thing about it is that brief but difficult efforts are what really burn the most amount of calories, it's what has the most profound effect on metabolism, it's what has the most profound effect on motor qualities that tend to enhance your everyday life; things like maximal strength, speed strength and so on.

Interestingly enough, as much as everyone is obsessed with aerobic exercise, life is not aerobic. It's so amazing how people tend to think that we have this great need for better aerobic fitness in life. And the fact of the matter is if you're not a competitive endurance athlete, the need is not there.

Joe: Maybe back in the days of the dinosaur, when you had to go chase big dinosaurs to eat lunch or something, then maybe it was more important. But today's day and age…

Charles: I think you could even argue against that.

Joe: I'm just joking, by the way.

Charles: But let's think about this, just to make my argument here. In the days of the dinosaur, if you think about it, you're going to do a 200-meter sprint, throw a spear and get into a big fight and you're done. So it's not like you're running for miles and miles, even then.

Joe: Let me stop you there, Charles. I probably should have come up with a better analogy, like maybe an Indian chasing a buffalo or something. I'm sitting here thinking, "Would anyone really chase a dinosaur?"

Charles: Really. It's very true. And the other thing I think about along the same lines are that if you look at people as they age and you look at somebody who's 80, 85, 90 years old, is their life primarily limited by the fact that they don't have enough aerobic capacity? Or is it primarily limited by the fact that they can't walk without a walker, they don't have enough muscular strength.

Joe: You're right. I have seen people that do weight training and strength-resistance training as their primary form of exercise and conditioning, versus people that are marathon runners and jog a lot. Again, I'm no expert in this subject. From just looking at two individuals like that, the person that lifts weights always appears to be more healthy, more energetic, look better, look less fatigued, seems to get through the day more than someone that does nothing but run for miles and miles, endlessly.

And again, this is, of course, in the context. I'm not saying that running is bad.

Charles: As a matter of fact, if running is your thing, there's a lot to be said for doing exercises that you enjoy doing. So no question about that. I'm just here to try to tell you what I think is the optimal way to look at things.

Joe: I want to talk about motivation, because I think you have a very funny take on motivation.

Before we get into that, I want to again hit you with another devil advocate question; really more so because I just want to have, for the listeners out there that are thinking,

"What about what he says versus what someone else says?" Why do you say that your method of doing this and not being a fatigue-seeker is the right way to do it?

Charles: Well, here's my kind of concept on this. I think that the way to evaluate the effectiveness of training is to see how well it improves the qualities that are being trained, not by how bad you feel after the workout. It's just common sense.

If you're in school to learn a profession, what matters more, how difficult it is or how well it prepares you for the profession?

Joe: Right.

Charles: What else can I say? That's all there is to it.

Joe: Clearly, I believe what you have to say. I wouldn't be interviewing you if I didn't, and never would have asked you to do this interview if I didn't.

Charles: The fact of the matter is if you're training properly, there will come a time when you've got to work hard.

Joe: What's the whole saying, "No pain, no gain?" What do you think of that term? It's been used for years.

Charles: I say, "No challenge, no gain." So in other words, if the challenge is insufficient, nothing happens. If the challenge is excessive, either you hurt yourself or you drop out because it's just too much of a change, too fast.

And by the way, for novice exercisers, the biggest, biggest, biggest mistake is running out and doing too much, too fast, too soon. Initially, you have high hopes and great expectations and motivation, and you've really made a change in your life. But it's a big change in lifestyle. And if you do that too fast, you're just not going to sustain it.

Joe: Actually, you address that in your training system, which I would like you to talk about after we spend a little bit of time talking about your take on motivation.

Charles: Sure. Well, I just think motivation… how many courses are there out there on goal-setting? It's so cliché that I people just don't pay attention to it anymore. I think it's profound.

Joe: Yeah, there's a lot.

Charles: Like when I hear Brian Tracy talking about goal-setting, one part of my brain is thinking, "This sounds cliché," but it is so profound.

But most people know the definition of a goal. It has to be in writing and it has to be concise and measurable, and has to have a deadline and all that stuff. But there's an aspect of goal-orientation that I think a lot of people miss, which is you set up your goal and then you do a little self-evaluation inventory and you say, "Okay, what are the 3 ways that my life is going to change for the better if I accomplish this goal?"

And then on the other part of the scale you say, "Okay, what are the 3 things that I'm going to have to give up or sacrifice?"

By the way, my definition of sacrifice is not to just give something up. But sacrifice means you give something up to get something better in return.

Joe: That's a good way to frame sacrifice.

Charles: Yeah. So there's a positive in it. But then you weigh it out and say, "If I accomplish this goal, I'm going to get this but I'm going to have to do this." Then you weigh it out. And you really need to spend a lot of time with that little process.

If you really clearly see that the result is worth what you're going to have to pay, then you're going to be right on track on that goal.

I just think, just to make this ridiculously silly, if I'm driving my truck down the road and all of a sudden there's like flames shooting out of the dashboard, I don't have to hire Tony Robbins to come give me a 3-hour seminar on motivation to get me out of the car. I'm going to stop the car and jump out. I know that if I don't, I can clearly see the outcome.

Joe: That's very funny.

Charles: Exercise, on the other hand, is not quite so immediate and obvious sometimes. That's just my whole thing. But people, I think, by nature are goal-seeking creatures. I just think that that's a big part. And that's a big part of my exercise system, actually. We'll talk about this later, I guess. But every single session, you have an exact objective. And it's funny, when I go to gym, I walk in and I have my workout log right in front of me. And basically, it's just a set of instructions of what I need to accomplish. And then you see 2 guys on the bench next to me, and they're like, "What do you want to do today?" And it's like, "Oh man, you guys are dead." If you walk in and you don't even have a plan, no wonder you're not motivated.

Imagine walking into your office in the morning and you're like, "Well…" It's over.

Joe: You're right. This is definitely something that is very important. I even wrote it down here, and it's not that I haven't heard you say this before. "Sacrifice: give something up to get something better." And the reward systems that many people have made up in their minds, they just don't justify what they feel they're going to have to put forth in order to get something.

Charles: The other thing is that people have had bad experiences with exercise. You're doing the wrong things, you're doing the wrong kinds of exercise and you don't get results. I think a lot of people really cannot connect with the outcome. They really, on a deep level, just don't think it can happen.

Joe: I have some friends that are very bright business-wise, very successful, that have even made statements to me, "I hate exercise, therefore I'm not going to do it."

Charles: You can't say it. Exercise is not a singular entity. You can swim. You can rock climb. You can lift weights. You can be a master's level track athlete. You can go bowling. I'm not sure if I classify that as a sport.

Joe: What about scuba diving?

Charles: Yeah. So to say you hate exercise, there's millions of kinds of exercises and there's millions of ways to do each type of exercise.

Joe: What about chess? Is there a way to do like power chess?

Charles: They do have like speed golf. I'm sure you've seen that. I think that's awesome.

Joe: Even yoga, power yoga, which I actually do power yoga every once in a while. I think it's great, and it's very hard. But nonetheless, I do that more so because it's massively relaxing versus just a good weightlifting exercise in the gym or wherever one wants to do it.

Again, at some point in this interview, in case I forget please bring it up, I want to talk with you about places to work out. I have a home gym, but I also have memberships at a couple of other gyms because I like environmental changes. But nonetheless, there's also sports where you never have to work out at home or in a gym; you can go, like you said, climb rocks or do whatever.

Charles: You bet.

Joe: Let's talk about your training system, because I think a lot of the questions people would have is you have your training system, which you call EDT, which I'd like you to define and tell the listeners about.

Charles: It stands for Escalating Density Training. In certain respects, there's nothing unique about this at all. But in other respects, it's completely different from everyone else. It kind of has that, "Aha! I get it." It has that kind of quality to it a little bit.

But what Escalating Density Training is, if you look at a typical resistance-training workout, let's see if I can make this as bread-and-butter as possible, you'll go in and you bench press and you do a certain weight for 3 sets of 10 and you rest 3 minutes between sets. And then you go to your next exercise and you do 3 sets of 10 of that and you rest for 2 minutes between exercises, and so forth and so on. And you do your program. Usually, the idea is that you do as much weight as you can for those 3 sets of 10.

Other systems have pyramids, so you lift as much as you can for 10, then you put a little bit more weight on the bar and you do as much as you can for 8, then 6, and so forth.

In Escalating Density Training, it works out a little bit differently. There won't be time to go through the whole system, but just to kind of give you the basics of the system. What happens is you first take 2 exercises that are an antagonistic pair. So for example, if you do a chin-up, that is a lat and bicep exercise. Then you compare that with a tricep push-down. So the tricep muscle is antagonistic to the bicep and lat muscles. And we talked about how that is kind of an energy-conserving device earlier.

So you take those two exercises and you find a weight on each exercise that approximates a weight that you could lift 10 times, but not 11. At the beginning stages, if your approximation is a little off, it really is not going to make any difference.

The big thing is for each exercise you take a weight load that is approximately equal in difficulty. So, in other words, if I do 5 chins and then I find a certain weight and do 5 push-downs, they feel about the same amount of difficulty.

So now, what you do is I have a concept called PR Zones. What that is, is a 15-minute period of time. You warm up the 2 exercises. You do a couple of sets of each until you find out what your weight load is going to be. Let's say for me, on chins, it will be my

body weight. Let's say I can do 10 chins, but not 11. So I'm going to take body weight on chins, and let's say I'm going to use 100 pounds on push-downs.

So now, what I'm going to do is I'm going to take my stop watch and I'm going to say, "Ready? Set? Go!" And I'm going to go over to the chin bar and I'm not going to do 10 chins, even though I can. I'm going to do 5 chins. And then I'm going to go over to the tricep push-down machine. And I'm not going to do 10 reps, although I could, I'm going to do 5. And then I'm going to just make a quick note in my workout log and then I'm going to do 5 on chins, and then I'm going to do 5 on push-downs.

And I'm going to keep going back and forth, and I'm going to keep doing sets of 5 until my fatigue accumulates to the point where I don't want to do 5 anymore; I'm too tired, it hurts too much.

So then you go down to 4 or you go down to 3. There's an intuitive aspect to this, which I'll get into in just a second.

So let's say I'll just drop it down to 3. So I do 3 chins. And I'm getting more tired, so I'm going to rest a little bit more between sets now. And then I go over to tricep push-downs and I do 3. And then I go over to chins, do 3. And then when 3's get more than what I feel like dealing with, maybe I'll just do sets of one. So I'll do one chin and one tricep push-down. And then all of a sudden, ding, your 15 minutes is up.

So what you do is you just total up the total number of the reps you did for each exercise. So let's say you did 40 total reps for each exercise. Now what happens is you do the next workout and the next workout. Let's say you did this on a Monday. The following Monday, it's time to repeat that workout. That should be a familiar concept with most people. It's called a body-part split. Maybe you do chest and biceps on Monday and back and biceps on Wednesday, whatever it is. So the next Monday, you come to repeat that workout.

And now, here's where it really gets interesting in terms of a motivational point of view. The first thing is you know when you're going to be done before you even start, which is huge. Most other training programs, they just say, "Okay, do this, and God knows how long it's going to take you." You know what I mean?

Joe: Right.

Charles: So with this, you know you're going to be done in 15 minutes. If you know when you're going to be done, you can work a lot harder. If you know it's only going to be brief, you'll mentally and psychologically be willing to work harder.

The other thing is you know exactly what you have to accomplish. And what that is, is that you need to get more than 40 reps. I don't care if it's just 41 reps. People have different temperaments in terms of being aggressive or passive, whatever it is.

So now, it's like, "Ready? Set? Go!" And now, your goal is just to arrange those sets and reps and rest periods any old way that works the best, so that you get more than 40 repetitions. And that is really the essence of the system.

What it does is it ensures that all the training principles are in place, and the most important one being progressive overload. So what's going to be happening is workout by workout by workout, you're gradually going to be doing more and more work in the

same period of time. And that's where the density and Escalating Density Training comes into it. Density is the work/rest ratio of a workout. In other words, if you do a workout for an hour, how much of that is work and how much of that is rest. And that's what density is.

So in this system, what happens is you're gradually doing more and more work in the same period of time, so your density increases.

Joe: Gotcha. So you just get more out of the same amount of time that you were spending before.

Charles: That's exactly it. And that's the definition of power, by the way. It's interesting how a lot of these terms mean the same thing in the physical world as they do in the big world. The definition of work on a biomechanical level is to move a certain weight a certain distance. The definition of power is you move a certain weight in a certain distance in a certain period of time. And interestingly enough, in the big world, power means your ability to get a lot done fast, to have an impact. So it kind of means the same thing.

Joe: Yeah. Like in the marketing world where I teach, the examples I always use, and I use the term "leverage" a lot, is one thing I say when it comes to advertising is that the difference between a $1 and a $100 is the message on the paper. And if you're going to take a half-page phone book ad, it's going to cost one person the same amount of money as it's going to cost someone who is a competitor the same amount. But what you get out of that half-page depends on the message.

So the point is if someone's going to devote 3 hours a week to working out or 3 30-minute sessions a week to working out, one person's going to get one result out of the 30 minutes and the other person's going to get another result, solely based on not the fact that they took 30 minutes, it's what they did with the 30 minutes and what they're doing around the 30-minute workout to set up the best context which, of course, could go into nutrition and rest, which I do want to have you talk about.

Charles: You know, it's just like anything else in life. If you think about the familiar faces that you see in your health club when you go in, how many of those people have made a change in their body that's significant enough for you to notice?

Joe: Very few.

Charles: And it's that way in everything. It's that way in marketing; it's that way in business.

Joe: It's like making money.

Charles: The 5% club.

Joe: I was going to say it's like making money. We all live in the same 24-hour-a-day period. Some people figure out how to leverage their time and their resources so they can get more production.

But when it comes to money and making profits and stuff, which is an area that I spend the majority of my time with educating and teaching my clients how to do, I think on a scale of significance to an enjoyable life, I think this is 10 times more important.

Charles: Yeah. It is important.

Joe: Unfortunately, it's much harder for people. It's much harder for people to see the benefits of this. And that's, of course, the main reason why I do interviews like this.

Charles: What's interesting, and this is for the guys in the audience, I'll give you a little analogy that you'll kind of laugh at. And the women who listen to this will be just like, "What?"

But the type of thing that happens is if 2 guys walk into an elevator simultaneously and the door changes, I'll ask you this question and it might not occur to you consciously, but when you look at the other guy, what are you thinking?

Joe: Oh, my God. I'm trying to honestly think. Sizing the guy up, you mean?

Charles: Yeah, that's it. You're thinking, "I wonder if I could take him." This is what guys do.

Joe: You sound like Tim Paulson, who actually works with me. That's one of his favorite things. "If you got in fight with this guy, do you think you could take him?"

Charles: Yeah. But this is how guys operate. So business, really, is just a substitute for combat. I think that's another way that exercise plays into this whole thing.

Joe: I think that's why people buy the book *The Art Of War For Business* in droves, because there's that underlying competitive nature.

Charles: That's right. So if you can't do it physically, then you get your catharsis through business.

Joe: Yes, exactly. That's great.

Well, let's go back to excuses, because I want to cover the one I brought up, which is a lot of people listening to this may not have a gym membership or own any equipment whatsoever. So that could be an excuse. "I don't belong to a gym."

Charles: I'll tell you something else. Actually, I train most of my clients, many of whom are paying me what I think are pretty large amounts of money and their whole career is at stake, and I train them right in my garage.

Joe: Professional athletes, the whole bit?

Charles: Yeah.

Joe: You've trained some very elite athletes.

Charles: It's kind of like the analogy I always use is if you can remember the Rocky IV movie, and Rocky's going to fight the Russian guy, Ivan Drago, I think his name is. So they show how each guy's training. And I don't remember the specifics, but Rocky's like trudging up a hill in the snow with a log on his back, punching sides of beef and all that kind of stuff, or chopping wood with an ax. And then you show Ivan Drago, and he's in this lab in the Soviet Union, and they've got like a heart rate monitor and he's on force measurement equipment and they're measuring his hormonal levels, and they've got all these scientists studying him.

In reality, 20 years ago when the Soviets were kicking our butt in like every sport imaginable, it was, in fact, exactly the opposite. The Soviets had horrible equipment, horrible nutrition, and we had great equipment and all the great facilities and everything, the best nutrition. But what they had was good methodologies.

So the answer is in methodology, not really technology.

Honestly, you'd be amazed. Maybe you personally wouldn't be amazed, but most people would be amazed at what you can accomplish with just a good set of adjustable dumbbells. There's a company called Power Block, at www.PowerBlock.com. It's like select the right set of dumbbells.

Joe: Those are great, actually.

Charles: Oh, yeah. And an adjustable bench and a squat cage, and the whole thing might cost you $300, $400, $500. And you can fit it in a room. And really, that gets you about 80% of the way there.

Joe: Wow!

Charles: A 300-pound barbell set can be purchased anywhere these days for like $80, $90.

Joe: Yeah, you're right. You said a very important point, which is it's the methodology, not the technology. Again, using a marketing example because that's where most of my time is spent, in that world, one thing we tell people all the time – which I originally heard from my good friend Jeff Paul – is "Technology is important, but you need to know which technologies to implement."

Psychology is a heck of a lot more important than technology, to know why you're going to use a certain technology to know why you're going to use a certain technology.

Charles: It's good to know the why's first.

Joe: Exactly. It's crucial. There's so many people that want to use marketing, so what do they gravitate towards right now? The biggest technology. "I want a website. I want to use the internet. I want to use all this high-tech stuff." And I go back to, "What about a letter printed on paper? It works very well if you have the right message and you know how to create a compelling message," which is what we teach people how to do here.

So in terms of working out, your point is because you don't have the most high-tech equipment or heart monitors and all these other things, and you don't belong to a gym, is really just an excuse for not working out.

Charles: You know what's really funny and a great example of that in the exercise world? The biggest new kind of trend out there right now is a thing called "functional training," which is, to me, like a totally comical term because it infers that anything else is non-functional.

But if you ever go to gyms and see people doing things on exercise balls and waffle boards, foam rollers and all these kind of weird exercises where you're balance is very difficult, that's the concept of functional training. The idea is that you're training your stabilizer muscles. There is a kernel of truth to this. But the funny thing is if you just take somebody who does a plain old barbell squat, and if you take… A good friend of

mine, Dr. Fred Hatfield, is the first man to ever squat 1,000 pounds. He did it at a relatively low body weight of 260, which sounds like a lot of body weight for most people out there. But if you're squatting 1,000 pounds, he's like the smallest guy to ever do it.

Anyway, this guy's 5'6" and he has a 40-inch vertical jump. To me, that's pretty functional.

Joe: I would say so.

Charles: This guy can do things. You would not want to get in a fight with this guy. He'd probably take you in a 100-meter sprint, flat out. And marketing probably plays into this to some degree. What else can you do to sell a barbell or a dumbbell? So I understand that whole thing. But in reality, if you want to be on the inside track here, although all the machines and equipment out there can have a certain place, they're by no means necessary.

Joe: What is that line that you say about NASA spending millions of dollars on pens?

Charles: I've got a colleague, his name is Pebble Thesolein, who has got really great stuff, great books out there and things. But he tells a joke in seminars where he's saying that when the American astronauts went to space, they found the pens wouldn't work because you're upside-down, or whatever, there's no gravity and the ink doesn't go to the point of the pen. So they spent all these millions of dollars developing a pen that will work in space. And he goes, "In Russia, we just use a pencil." I love that, because that really speaks to the efficiency. In most cases, it really just comes down to creativity and efficiency.

Joe: That applies to so many areas of life. Sometimes, the things are so obvious that people don't see them.

Charles: The website example is the best.

Joe: What's that?

Charles: The example you gave about websites. All the websites out there that are making money are the ugliest. It's just like a big, long letter, but they're the ones that do the most profit.

Joe: Exactly. Exactly. Let's talk about, if you could say a few things, about abs training. That's a big thing. There's so many abs devices.

Charles: You know who's got the best abs? You ever watch cops? You don't have to admit to this, but I know you do. If you watch cops and you see the criminal guy running from the cops, like he's just been dining out at the local dumpster or whatever, that guy has abs. The guy doesn't exercise, just strung out on drugs and he doesn't eat.

Joe: So is that the methodology here?

Charles: You can actually get abs like that without having that kind of lifestyle. But the hidden lesson in this is that having abs is just a matter of getting your body fat low enough. That's all it is.

If my great-grandson ends up being a strength coach and is interviewed by some guy 300 years from now, the same question will pop up. This will never, ever die. People cannot, for some reason, understand that there is no direct metabolic pathway from your abdominal muscle to the fat on top of that muscle. So it is just a matter of energy balance. And if your body fat is low enough, you're going to have abs. When I say you're going to have abs, everybody has abs. But the point is you can do every abs exercise under the sun and buy every frigging infomercial gadget there is, and do electronic stimulation and everything else. But if your body fat isn't low enough, you're not going to see them anyway.

So it really is just more of a holistic issue of getting your body composition to a point where you've got enough muscle and a small enough amount of fat that you can see your abs.

The reason that doing tons of abs work is kind of a mistake is not that it's bad per se, but if you're trying to burn calories there are much bigger muscles on your body, such as glutes and hamstrings and quads and pecks and lats and things like that, that when challenged will burn far more calories than the abdominal muscles will. The other thing is abdominal muscles tend to be more on the slow-twitch side, also.

Joe: Right.

Charles: So it really is just an overall exercise/diet/lifestyle issue.

Joe: Can we talk a little bit about diet and how much of a role you feel nutrition, supplementation, whatever plays into how someone looks?

Charles: It's pretty big. It's kind of funny, because in my field, you always hear people say, "Nutrition is 90% of the battle." And other people say, "Training is."

To me, it's like what is the sound of one hand clapping? You can't. It's an integrated kind of thing. So nutrition is big, but it takes discipline because the results are not that fast. But it is crucial. When I say it's crucial, that doesn't mean you have to be eating like dried chicken breasts and dry mashed potatoes 6 times a day, like some people do. You don't have to do anything particularly that extreme. But diet is a big part of it. It really is. If you like, we can talk about kind of the checklist on this, if that's of interest.

Joe: Yeah, maybe a quick overview. And, of course, you're more than welcome to give out resources and stuff, if you'd like, books or things that you think people should read, including I know you've got tons of your own stuff.

Charles: Yeah. We have a nutrition segment on the newsletter, as well, and I'll give that information later.

Just as a checklist, in terms of the things that most people tend to do wrong, a lot of people are really mesmerized and kind of freaked out about the whole high-carb, no-carb, high-fat, high-protein. That is not the first decision. The first decision is that you've got to just get your calories low enough. That really is number one. You've got to learn a little bit about what is in your food.

If you want to become a great marketer, you have to educate yourself. If you want to be a good salesperson, you have to educate yourself. If you want to understand nutrition, there's no way out of this. It's not that difficult. But you've got to do a little work to

educate yourself. Get yourself a little food counts book, start reading labels, start getting a sense of when you go out to Baja Fresh or whatever and have a burrito, see if they have nutrition information. Look on packages. Get a sense of what kind of calories are in the foods that you eat. That's the first place to start.

Basically, I don't care if your diet is 100% fat or zero fat or 100% protein, if your calories are slightly less than what you need to get through your day, you're going to lose weight. So that's really the first kind of place to start.

The second place to look at is meal frequency. This is a big problem for a lot of people. You cannot eat once or twice a day. Your metabolism will go right down the toilet.

Joe: Explain why.

Charles: The body wants to maintain homeostatic normal. I'll give you another example, first. A lot of people think that if you drink water, you'll get bloated. It's just the opposite. If you don't drink water, your body's like, "Where the heck is the water?" And then it saves its own water and you become bloated. It's sort of trying to counter what you're doing.

So it's the same thing in terms of calories. If you eat very infrequently, the body goes into a mode of conserving calories, because it feels like it doesn't know when you're going to eat again. I'm grossly over-simplifying this.

Joe: No, that's like the fattening the hog type of thing that farmers do…

Charles: That's right. That's exactly right. So if you're going to eat X number of calories a day, and there have been a number of studies on this and this is one of the few areas of nutrition that is really quite clear, if you take 2 groups of people and they eat the same amount of calories, and one group eats 2 meals a day and the other group eats 5 meals a day, the group that's eating 5 meals a day will have much better body composition. Assuming they're on a calorie deficit, in other words they're dieting, the group that eats 5 meals a day will hang onto their muscle tissue. When you hang onto muscle, your metabolism remains elevated. And therefore, you become lean.

Joe: So we should really live more like grazing, as opposed to just eating big meals once or twice or 3 times a day?

Charles: There's absolutely no question about it.

Joe: You've obviously heard this and, of course, I have too. I'm trying to ask questions that I think are layman questions.

Charles: Sure.

Joe: Is there any particular meal that is more important or more crucial than any other portion of the day?

Charles: Well, there are a couple of things. Obviously, the first meal of the day because you haven't had food in you for however long you happen to sleep, 8 or 9 hours, whatever it is. So if there are 2 meals in the day that are most important and/or where you can eat more, it is the first meal of the day and also the post-workout meal. That's when your metabolism tends to be highest. So it only makes sense that you want to provide energy when there's the greatest need for it.

Joe: Gotcha. What about sleep?

Charles: I think it's really important.

Joe: Next question?

Charles: Sometimes I'll do some lecture to fitness trainers about lats, and then, of course, you go, "What's a lat?" So just to start at the beginning, I think it's important.

There was a study out I think about 9 months ago, and it kind of confirms something that I've suspected for a long time. They were studying middle-aged men who were getting kind of a paunch. They're getting abdominal body fat deposition. They found a link between that and not sleeping as deeply. And what's really kind of interesting is that we've known for a long time that there's a connection between growth hormone production and your ability to burn body fat as fuel.

So what happens is that in middle-age, they're finding that men, in particular, don't sleep as deeply. One of the biggest spikes of growth hormone you get throughout the day is during the deep stage of sleep.

Have you ever been completely exhausted? Like last week, I got back from the Grand Canyon and we came home and I just laid on the couch, and I was just out. And you have this delicious feeling. It's hard to articulate. But I think everybody can relate to that. And that's growth hormone.

So middle-aged men tend to not sleep as deeply. You don't get that growth hormone spike and you start accumulating body fat . And I've had a number of cases where I've had middle-aged men consult with me in terms of trying to get lean, and invariably, when I sort of interview them about sleep habits, they're like, "Yeah, I don't know what it is, but I watch TV until like 11:00, 12:00 at night, and then I'm up at 5:00."

So it is important. And I think improving your fitness, just like anything else, is all about finding your weak links. If anybody out there feels like they're eating well and exercising regularly and it's still not happening, I would really look at your sleep habits.

Joe: The reason I brought that up is it always goes back to an analogy of someone I interviewed several years ago, a very bright woman by the name of Terry Lonier, who wrote a book called *Working Solo*.

Charles: I've got that book.

Joe: Oh, do you? Good.

Charles: It's excellent.

Joe: Terry's great. And she made this one comment, which I have always remembered. And I've said it several times. So people who have been listening to my tapes for years have probably heard me say this or reference it. She talks about rest and the way you schedule your time. She makes the analogy of a million-dollar race horse. If you had a million-dollar race horse, that you expected this horse to perform at its optimum level and win races for you, you wouldn't shove junk food down its throat. You wouldn't run it so that it's so fatigued that it could never win a race. You'd let it have rest and relaxation, you'd give it proper nutrition and proper exercise. And she's like, "So many people out there in the business world, they want to be million-dollar race horses, million-dollar

producers, they want to do really well, but they run themselves to death, they never give themselves any rest, they eat junk food, they never exercise."

I just think it's a great way of looking at how you set yourself up, because it does go back to the weakest link thing. If there's an element that's bogging you down or that's causing you to have a barrier or hurdle in front of you, address it. It's not going to go away on its own.

Charles: I notice it very distinctly, because a lot of what I do is creative work. I do a lot of writing for all the magazines, and so forth. The difficulty of writing for sports and fitness and muscle magazines is that there's only so many ways to do a curl. It's sort of like epidemic. Basically, there's really nothing new under the sun. But you've got to find some kind of unique take on it. There's nothing wrong with that, if I can find a unique take on an old subject that gets somebody to read it and finally go, "I get it!"

I think you do a fair amount of writing, if I'm not mistaken.

Joe: Oh, yeah. Tons.

Charles: There's a certain very delicate mind frame, at least for me, that I've got to be in to really write productively. And it's kind of like either I can or I can't. So I notice it really distinctly if I'm not in a clear state of mind from lack of sleep. No question about it.

Joe: Well, let me go to another question. At this point, what I'd like to do is you mentioned earlier about scheduling workouts. But I think we've said enough to convince people up to this point. But if someone is listening and they just don't feel that they really know where they should go or what they should be doing from this point, please, as best you can, give the listener a step plan or what it is that they can do. And I encourage you to recommend any resources, including your own. I know you have programs, I know you do consulting.

Charles: Sure.

Joe: You're certainly a source that I would recommend all the listeners to check out and to use, because I've taken advantage of a lot of your stuff and I know it's good.

Charles: I appreciate that.

Joe: Someone sitting here, they don't really know what to do. How should they schedule their workout, what should be their steps, that type of stuff?

Charles: At the risk of sounding self-absorbed and arrogant, I'm going to make kind of a pitch for my coaching group here.

I would love to be able to say, "Find yourself a good fitness trainer and get started that way." I think if you can find a good fitness trainer, I think it's awesome.

The problem is, just like anything else, there's kind of like the 90% rule, which is that in most professions, 90% of practitioners are crap. It's just a fact of life.

Joe: That applies to the advertising and marketing world, for sure.

Charles: It applies to everything. It applies to when I used to teach martial arts. Same thing. Massage therapy, same thing. Chiropractic. If you can find a good one, it's profound. So if you can do that, the problem is how do you know.

I sent a friend of mine recently over to a very well-known health club chain, and she hired a fitness trainer. They gave her a nutritional program. And a week later, she calls me up and she's like, "Charles, can I run this diet they gave me back to you?" I'm like, "Sure." She's reading off the meals and then she goes, on meal 2, I forget what it was, but the meal included 17 saltine crackers. And I'm like, "What?!" Just amazing.

Joe: Including crackers that are the normal type, that the person would probably have partially-hydrogenated oil in it.

Charles: You don't have to know anything about nutrition to know that there are better things to eat than crackers.

Anyway, if I knew of good resources like that, I would send them to you. But because I don't and because over the past couple of years I've been just completely inundated by e-mails and phone calls, I try to be a nice guy and help everybody out. But it was just getting to the point where I was just spreading myself out too thin, trying to help people out.

So finally I said, "Alright, I'm just going to have a private coaching group. So basically, I'm going to have my hands-on clients here in Las Vegas, and everybody else is in the coaching group. And that's limited to a small number. At any given month, there may not be any spots available. Like right now, I think there's like 4 spots available. It just depends on what it is.

But basically, how it works is you sign up and we charge like $97 a month for this. So my time for an hour for a hands-on client is $300. So for a month, it's like $97. And I send you a very detailed questionnaire, and it really gets at the heart in terms of what your weak links are, what you're doing, what your past experience is, what your body type is like, what facilities you have available, all of those sorts of things.

And then what we do is we create a training program for you. Along the way, coaching group members have access to a private section of my website, and we've got exercise descriptions and photos. We've got a private e-group that these people are members of. And I've got weekly conference calls. And basically, they're just like office hours. So every week, coaching group members and I get together and they can pick my brain on all these sorts of subjects or ask questions about their workout programs and so forth and so on. They get a free copy of *Physically Incorrect*, which is the big e-book. It's like 600 pages.

Also, I have a one-day seminar four times a year. And if you're a coaching group member, you have free access to that. We have guests on the conference call. Joe, I would love to actually have you sometime on that. But we've got very well-known nutritionists and motivational experts and things.

So basically, Joe, it's kind of like a support group for functional people. Here I am, I'm like 43 years old, and I'll tell a friend of mine, "Hey, I just power-cleaned 280 pounds." And they look at you like, "Okay." People just don't kind of get it. So I think it's that

way in any aspect of life, if you're pursuing aggressive goals. There's not going to be a lot of people in your life who can sort of relate to that.

So it is sort of a support group. I have everybody from 60-year-old novices in there, to I've got one girl who's a national level power-lifter, who just had the best meet of her life.

So it's been a lot of fun. The members learn not only from me, but from each other. So they're sending recipes in to the e-groups and they're sharing tips on how they're making their workouts more efficient. So it's a lot of fun.

Joe: Give out your website and give out your phone number for anyone that is interested in that.

Charles: Sure. The website is www.edtsecrets.com. Like Escalating Density Training, edtsecrets.com. We've got a free newsletter. Would love to have people sign up for the newsletter that comes out the first of each month.

In terms of coaching group or anything else, you can call in. It's 800-519-2492. For the coaching group, they would want to speak to Rebecca, who can let them know if there's any availability, and she can get people signed up if they're interested.

Joe: Very cool. That's a great resource and I do appreciate you giving that out. And, to the listeners, I have absolutely no financial interest in this. I just encourage Charles to give out any resources because if you take this to be an important area of improvement in your life, which certainly I don't think there's anyone. I don't believe that to be the case. And then it's really how much is your health worth to you in order to invest time into learning how to improve it.

What about scheduling workouts? How often should someone work out?

Charles: Great question. From the standpoint of being a novice, more than you're doing now. It's true. Getting back to the idea that people tend to do too much, too fast, too soon. I don't care, at the beginning, if somebody is doing what is optimal. I just care that they start establishing some kind of a pattern.

So I would say here's just a hypothetical progression. If you've never done a lick of exercise in your life, I would have you do resistance training 3 times a week for half an hour. At beginning stages, I would have you really more focused on learning how to do the exercises properly, not pushing yourself to any degree.

First of all, the very fact that you are scheduling something 3 times a week is kind of a stressor. It's a change to your lifestyle. You have reschedule things. You have to figure out what you need and what you're going to do. So don't worry about it. For a month, just do your half-an-hour 3 times a week.

The other nice thing about being a novice is that you make improvements so fast, even if you're not working hard. Because no matter what you do, it's above and beyond what you're used to doing. So the nice thing about being a beginner is every week your weights are going up and you see changes in your body.

If you're somebody like me, I've been training for 20 years, it might take me like 16 weeks of intense training to get my squat to go up 5 pounds or something. Obviously, the

longer you're doing it, the closer you are to your ultimate potential. You have to put more and more work for the same amount of results. So there is a nice aspect of being a beginner, as far as that goes.

And then, once you've got that under your belt, then I would probably, on 3 alternate days, having you do what's called interval training, which would last maybe 15 minutes. Interval training is essentially where you get a piece of cardiovascular equipment such as a bike or a rower or a stair stepper. You could do this running, you could do it in a pool, any sort of steady state activity like that. And instead of doing 20 minutes at 60 percent of your target heart rate, whatever that is, what you do is you go hard for one minute. That's sort of a subjective term, but on a one to 10 scale maybe you're going to do like an 8 for 60 seconds. And then you're going to do a 4 for 2 minutes. And then you're going to do an 8 for 60 seconds. So basically, one minute hard, 2 minutes easy.

What's kind of nice about that is because the activity is more intense, you are triggering those fast-twitch muscle fibers, which are going to be burning tons of calories for you for the next couple of days after you do that workout.

Because you're working hard but only very briefly, psychologically it's much easier.

Now, this might just be me, but I'm somebody who's been doing this, this has been my whole life for 20 years, but I'll tell you what. The idea of getting on a bicycle, maybe outside in the real world it's okay, but getting on a bike machine or getting on a stair-stepper and knowing that you've got to be on that thing for a half an hour, that is just daunting. To me, there's just nothing more boring.

Joe: I have a bike. But what I do when I ride it, which I ride it about 3 times a week, I read. If I had to just sit there, I would literally lose my mind.

Charles: So I would say do interval training on that bike, if you're not already. That is really the way to go. And then you just progress upward from there.

But it's not necessarily so much a matter of how much you do. I was training a very well-known athlete for the last Olympic winter games for the women's bobsled event, and her resistance training was only taking a total of about 2 hours a week.

Joe: Wow!

Charles: And that's at the Olympic level.

Joe: So the point is it's how you do it, what you get out of it.

Charles: It's more about how. People need to think less about what they're lifting and more about why and how.

Joe: I know you completely cover this in a lot of your educational materials. Again, let's give out your website and your phone number one last time, and we'll wrap up.

Charles: Okay. Again, the website is edtsecrets, and that's e-d-t as in Escalating Density Training Secrets, edtsecrets.com. And the phone number is 800-519-2492.

Joe: Awesome. Charles, this is a great interview.

Charles: This was great fun. I really appreciate it.

Joe: Thank you. I learned a ton of stuff. I know my staff is especially going to really enjoy listening to this. We've all been really, really getting the whole company into training on a regular basis, so this is neat. Thank you. I think this is really great information.

In the future, I'd like to ask my listeners, let me know what you thought of this interview. I would certainly enjoy interviewing Charles again in the future, if you would, of course, be up for that, Charles.

Charles: I'd love to. This is just a lot of fun.

Joe: Great. So please give me your feedback on this, to all my listeners, and make this a very important aspect of your life. And if you want to further improve, then you have Charles' contact information. I would highly recommend you follow-up on it. And that's it.

So thanks, Charles, have a great day.

Charles: Thanks, Joe, you too.